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Those Amazing Aleutians

By MURRAY MORGAN

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To

HENRY VICTOR MORGAN

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FOREWORD

The fat lieutenant said, "You're shipping."

"Oh." And then, "Where, sir?"

"Aleutian area."

"Oh."

I did not want to go to the Aleutians. As a soldier in the Alaska Communications System, I had known I would go north sooner or later. I had hoped for a glamor town like Fairbanks, an anachronism like Flat, or even bustling, officious Anchorage. I wanted a place with people and trees and history. The Aleutians, I thought, had none.

Before the war, when I covered the waterfront for a small paper in a West Coast seaport, the fishermen had spoken of the Chain. They feared it and hated it. They told of the williwaws, sudden and fierce, that sweep off the island mountains and drive schooners on the rocks. The fog, they said, is thick enough to chew. It's a good year when summer is on a Sunday.

Soldiers saluted the fishermen for their discriminating dislike. The Aleutians, GIs claimed, did things to a man. What things they indicated in phrases like "Adaky-wacky," and "Chain-drained," and "Aleutian confusion." A gag always good for a laugh in the islands is to say with twitching face and shaking hand, "Sure, I like the Aleutians."

Gobs agree with the Army about the Chain. In a beerhall on the skidrow in Seattle a sailor assured me, "They ain't even got angleworms." His companion said, "They're just big, ugly, wet hunks of black —. When the goddam war's over I, personally, am going to see that every goddam Jap has to spend at least two years on 'em."

So I expected to loathe every stone from Unimak to Attu. I don't. Army life in the Aleutians I hate, but I would hate separation and shortarm and crowded quarters anywhere. Fighting in

the Aleutians must have been agony, but I missed that. For the islands themselves, after more than a year in them, I confess a sneaking affection.

I like the cool, clear summer afternoons when the Bering is blue and the local mountain black. Those are days for walks across sweet fields unscarred by the Army, up mountains without paths or benches, along shores where the green-headed mallards sit in the reeds and fox cubs play on the sand.

Early one morning when the Bering was green and the mountain red in the upplanting sun, I picked twenty kinds of flowers within fifty yards of our hut: familiar blossoms like buttercups and violets, mountain flowers like lupine, island specials like the Aleutian orchid.

In the winter, nights seem as long as the war itself and the savage, solid wind beats against the end of the hut. The blows make the prefabricated igloo thrum like a tapped drum. A trip outside is always a fight, and sometimes fun. And then there are stretches of clear, cold days when the mountain is white and the Bering cobalt and the snow lies fresh and deep and unmarked.

When the weather closes in and the brute hulk of our neighbor island folds back into the fog, it is good to walk to the Bering. The sea rocks are bare and bleak, the narrow strait a bruised purple. Scoured by driving fog, the islands are washed clean of the present. It is easy on such days to step back into the past, to share the fears and exultations of the Russians and Englishmen and Bostonians who coasted these unknown, foggy shores in white-winged ships. Just a thought more distant are the days when strong-shouldered, bent-legged brown men slid through the stormy waters in sealskin canoes, coming to this misty land from God knows where. Or the days when the sea rocked and boiled and the steaming islands rose from the deep.

The Aleutians seem brand new, not even finished. New islands still rise from the sea; old ones are reshaped, quickly and violently. The Chain lives in its own formative past and in the dim past of mankind. Their today echoes our yesterday. But they are not without history.

There are few books about the Aleutians. Before the war no interest existed in the Chain, and though books since have covered the campaign, none has gone back into the history of America's

forgotten land. And that history is fascinating. The pelts from the Aleutians were the lure which drew the first Americans to the West Coast. The story of my own state, Washington, and of the whole Oregon country begins with these fur islands of the North Pacific. Knowing it makes the Aleutians a far from monotonous place.

Bridge to Russia

I.

THE LAND

The earth we walk on, not the globe, not the subterranean nickel but what you have under your feet when you walk in the country, what I see in front of me in this cut in the hill, bare element that here dry secretes small circles of white lichen and straw stars, residual of time and tempestuous summer, frayed and dropped in silt-fine layers in lakes now dry, blown up from sealed depths to cool in porous fragments, poured out molten in stone streams, this result and condition of existence, does it teach only of time and of process?

—Jacqueline Johnson

One learns that the world, though made, is yet being made.

—John Muir

THE EXPLOSIONS were violent. A hundred miles away they riffled the clouds and shuddered the earth. Four hundred miles away they were mistaken for blasting in near-by hills. Seven hundred miles away people heard thunder from a cloudless sky, and wondered. A mountain had just disappeared.

It was one of the great eruptions of recorded history. Had the volcano been at Kansas City, the explosions would have been heard in Cleveland, New Orleans, El Paso, and Winnipeg. The acid fumes would have tarnished brass in Portland, Oregon, and burned holes in washing on the lines in Portland, Maine. For sixty hours the ash would have been so thick in Omaha that a man standing at the base of a streetlight could not see the lamp. Had the volcano been one of the crumbling cones of the Adirondacks, its eruption would have changed the history of America. But Mount Katmai stood in the middle

of nowhere, halfway down the Alaska Peninsula, where the American mainland points a finger at the Aleutian festoon.

The Disappearing Mountain

About 7500 feet high, Mount Katmai was not much of a peak by Alaskan standards. It had given its name to an Aleut village, a river, a valley, and one of the most travelled passes of Gold Rush days. But there were old-timers on near-by Kodiak Island who had never heard of Katmai. After the mountain disappeared, one die-hard declared it had never existed.

But it had. Although southwestern Alaska was not adequately surveyed until years later, a Coast Survey chart—No. 8555—has been discovered on which Katmai looms large. If the chart is reliable, Katmai had three peaks—7260, 7360, and 7500 feet high. Although each of the three was taller than any near-by mountain, they were not big enough to give the volcano more than local fame. It took the explosion that knocked Katmai off the Peninsula to put it on the maps.

Until the spring of 1912, Katmai was a well-behaved volcano. It did not even smoke. Legends of the Aleuts who lived at its foot told of great snows, of fierce gales which snarled through the Katmai pass, but none mentioned eruptions. Katmai slept.

In the first week of June, the sleeper stirred. The earth shook. Most of the Aleuts from Katmai village were away fishing for salmon. The two families left behind sweated out forty-eight hours of steadily stronger earthquakes. On June fourth, they had had enough; hurriedly stowing their belongings into their kayaks, they paddled away.

The Aleuts were barely out of sight when the face of a near-by mountain fell away. Millions of tons of rock thundered into the valley; a hurricane of dust swept out onto Shelikof Strait. A still more violent tremor rattled the Peninsula. The floor of the valley split, floods of fire poured from the cracks,

lava spurted from the near-by volcanoes, blazing boulders spun thousands of feet into the air, plumes of incandescent lava played like fountains, clouds of burning vapor rolled over the forests, age-old glaciers went up in steam. At one P.M. on Thursday, June 6, 1912, these preliminaries were over. Mount Katmai blew its top.

In four great explosions, spaced over a period of thirty-five hours, two cubic miles of rock were blasted to dust and hurled so high it took months to settle. Two parties of Aleuts witnessed the explosion, but few of them would talk about the experience. The only eyewitness account was written by American Pete, the chief of a village twenty-one miles north of the crater.

"The Katmai mountain blew up with lots of fire," the chief told an interviewer six years after the event. "Fire came down trail from Katmai with lots of smoke. We got fast Savonski. Everybody get in bidarka. Helluva job. We come Naknek one day, dark, no could see. Hot ash fall. Work like hell. . . . Never can go back to Savonski to live again. Everything ash."

The ash fell everywhere, hot and stinking and heavy. It blotted the sun at high noon. It clogged the rivers. It broke roofs, sifted through cracks, coated the food. It burned the skin and inflamed the eyes. It drove animals mad. And to all who had heard the word "Pompeii," it brought thoughts of stifling death.

The town of Kodiak on the island across the strait was the nearest settlement of any size. Through some freak of sound, Kodiak had not heard the explosion. The first warning the four hundred inhabitants had of the horror to come was a thunder-storm in the afternoon. Thunder is infrequent in western Alaska; for many of the natives it was the first they had ever heard. Then a strange dark cloud swept toward the city from the northwest. At five o'clock gray ash began to fall.

At first the townsfolk were only curious. Half a century earlier, graybeards recalled, an Aleutian eruption had showered half an inch of dust on Kodiak. There was nothing to worry

about. But the ash fell steadily, drifting like snow, blowing in sudden blinding puffs, covering the ground. When, after fourteen hours, the fall slackened, there was a five-inch blanket. In the afternoon there was more, and worse.

"It fell in torrents," the purser aboard a ship in Kodiak harbor wrote. "It swirled and eddied. Gravity seemed to have nothing to do with the course of its fall. The undersides of the decks seemed to catch as much ash as the sides or the decks under our feet. Bright clusters of electric light could be seen but a few feet away, and we had to feel our way about the deck. . . . In the meantime, lurid flashes of lightning glared continually round the ship, while a constant boom of thunder, sometimes coinciding with the flash, increased the horror of the inferno raging about us. As far as seeing or hearing the water, or anything pertaining to earth, we might as well have been miles above the surface of the water. And still we knew the sun was more than two hours above the horizon. . . . Below deck conditions were unbearable, while on the deck it was still worse. Dust filled our nostrils, sifted down our backs, smote the eye like a dash of acid. Birds floundered, crying wildly through space, and fell helpless on the deck."

On the afternoon of the eighth the gritty fall slackened. The people of Kodiak, following the precedent set by the Aleuts of Katmai village prepared to flee; they took what goods they could carry and crowded onto the Revenue Cutter *Manning*. While the ash held off and there was still light enough to see, the skipper maneuvered his overburdened craft out into the harbor. He anchored at a point from which he could make open water, even in the sooty dark. There they awaited the worst.

During the night more ash fell, but in the morning the sky was clear. And on the next day, June tenth, the people of Kodiak returned, a little frightened and a little shamefaced, to their half-buried town.

Kodiak had had a rough time, but in the small fishing villages nearer the volcano the eruption brought hell on earth.

There were no revenue cutters to rescue the villagers. All they could do was sit and wait while the earth shuddered and the mountains spat flame. At Kafia Bay a fisherman named Ivan Orloff waited for three days, then wrote a farewell letter to his wife:

"My dear Tania: First of all I will let you know of our unlucky voyage. I do not know whether we shall be either alive or well. We are awaiting death at any moment. Of course, do not be alarmed. A mountain has burst near here, so that we are covered with ashes. Just ashes mixed with water. Here are darkness and hell, thunder and noise. I do not know whether it is day or night. Vanka will tell you about it. So kissing and blessing you both, good-bye. Forgive me. Perhaps we shall see each other again. God is merciful. Pray for us. Your husband. . . . The earth is trembling; it lightens every minute. It is terrible. We are praying."

Ivan Orloff lived to deliver the letter. By the night of the tenth the worst was over. For many months there were minor earthquakes and a pillar of smoke stood steadily over the volcano.

The dust of Katmai blew around the world. On June eighth it was seen in Wisconsin, on the tenth in Virginia, and on the nineteenth two California scientists who had gone to Algeria to take advantage of the clear desert air in making solar observations were dismayed to find a strange haze interfering with their work.

Meteorologists estimated that "the dust of Katmai diminished the heat available to warm the earth in the North Temperate Zone by about ten per cent during the summer of 1912." The summer was 1.6 degrees cooler than it would have been had Katmai behaved.

Back in the Aleutian area life slowly returned to normal. The ash settled into soil, the buried plants pushed slowly up through the desert waves, fauna returned—first insects, then a few animals, then a few scientists.

The scientists went through the half-buried village of Kat-

mai, pushed inland into the once green valley. They found a great steaming basin—The Valley of Ten Thousand Smokes—now a national monument. Measuring and estimating, the professors climbed the beheaded mountain and looked down into the crater. Three thousand seven hundred feet below lay a steaming lake, a pale blue lake such as none had seen before.

Katmai's crater was enormous. When the scientists finished with their instruments and their notebooks, they announced the circumference along the highest point to be eight and a half miles, the area four and six-tenths miles. Two cubic miles of mountain had disappeared in the eruption. Realizing that such figures mean little, the logarithm lads put it another way: in two days nature had moved more than forty times the material displaced by man in making the Panama Canal. Every building in New York City could be put into the crater, and room would be left for fourteen more similar cities.

Unsleeping Beauties

Such was Katmai. There had been many other eruptions like it in the dim past of the Aleutian area, and there has been one since.

Aniakchak, an 8400-foot, blunt-headed cone with a base a hundred miles in circumference straddles the Alaskan Peninsula one hundred and fifty miles southwest of Katmai. It was first climbed in 1923; its conqueror peered down into a stupendous crater twenty miles in circumference. At the bottom lay a long lake which proved to be well stocked with fish. Game swarmed in the great hole.

Geologists soon were pulling beards over the status of the new discovery. If alive, it was by far the largest active crater in the world, beating out Katmai; if dead, just an also-ran—number four on the list of huge holes in the ground. Father Bernard R. Hubbard, the geologic Jesuit, climbed Aniakchak and found things hot enough to make him vote a vigorous

"Aye." But the Geological Survey, which has the next to the last word, voiced a hesitant "No." There matters stood until exactly at noon, May 1, 1931. With only a prefacing puff of steam and not so much as a single warning tremor, Aniakchak erupted.

Even for the Aleutians it was a good eruption. It lasted eleven days, and after a nine-day pause blew up again. The explosions were heard for two hundred miles, and at the height of the activity ash fell at the rate of a pound an hour to the square foot sixty miles away.

Kodiak, two hundred miles to the east, had a light fall of dust. The townsfolk remembered 1912.

"One of Our Stations Is Missing"

With Mount Cleveland, on Chuginadak Island in the eastern Aleutians, it was different. The five soldiers on the island in 1944 knew "Old Tom" was active. But he was thought to be a doddering, harmless old duffer, much less to be feared than the island weather, which had claimed the lives of three men the winter before.

The soldiers on Chuginadak were there to watch the weather. They worried more about getting Chain-happy from the loneliness than they did about the perils of living on the lap of an active volcano. In their spare time they planted beans on the mountainside, roamed the tundra in search of salmonberries, and hunted ducks. Hunting was good.

On the morning of June tenth, Sergeant Fred Purchase of Holland, Michigan, went for a hike and a hunt. The morning was clear, and the men noticed that during the night Old Tom had started to spout black smoke instead of his usual gray. Then a fog rolled in over the mountaintop and no one thought of the volcano's antics again until afternoon, when a stream of lava oozed out of the fog bank.

The men at the station went out to warn Sergeant Purchase.

His tracks were plain and they had no trouble following them, but a mile from camp a new flow of lava, fifty feet wide and flowing fast, forced them back. Sergeant Purchase never returned. A crash boat rescued his comrades.

For the first time, the United States Army had lost an outpost to volcanic action.

A year later, on June 4, 1945, the enormous Tulik crater on Umnak Island came to life. Army Transport Service men running a cargo boat between Dutch Harbor and Fort Glenn on Umnak heard strange, thumping noises in the fog-hidden sea. They radioed Fort Glenn to ask why they hadn't been warned there was to be a bombing practice in this area; Glenn replied that no practice was being held as far as the commander knew. A few minutes later the ATS crew received the strange report: "You're being attacked by a volcano. Tulik is erupting." The thumps heard by the crewmen were not bombs, or even molten rock, but the subterranean rumblings from the crater.

Through day and night the booming increased in intensity. Smoke poured from the crater, and at night the sky glowed an angry red. On June fifth the base commander gave orders to prepare to evacuate the base. Planes and boats stood by to remove personnel. Men were alerted to be ready to leave at two hours' notice.

Dr. Howel Williams of the U. S. Geological Survey, who was in Mexico studying Mount Paracutin, was flown north to study the angry monster and estimate the danger. He made a carefully hedged report:

"There is no immediate danger that the crater will overflow, but at the same time there is no possible way to determine the length of time the present flow will continue, because there are no previous records upon which to base an estimate. . . . Volcanoes, if anything, are more unpredictable than women."

Relieved, the Fort Glenn GIs sighed, "We'll still take women."

Fire and Water

The Aleutians and the Alaska Peninsula are elemental: they were formed by fire and water. Together the Peninsula and the Chain make up one of the series of volcanic festoons draped along the western and northern edges of the Pacific—the Philippines, the Ryukyus, the Japanese home islands, and the Kuriles.

Although running from the tropics to the Bering Sea, these archipelagos are strangely similar. All are volcanic and tremblor-struck. Within their curves they hold shallow, protected seas; on the Pacific side they front deep ocean troughs. The geologic cause of these volcanic scallops is uncertain. One theory is that they have formed along a line of weakness left in the crust of the earth when the moon material was pulled out by a passing star.

Once water covered the entire Aleutian area. There were no mountains then, only a rolling ocean bed of sedimentary rock. Then, yielding to distant, mysterious pressures, the sea bed rose and buckled, mountains formed, land appeared in the restless ocean. More ages moved by and new pressures built up deep with the earth. Along the four hundred miles of the Peninsula and the nine hundred miles of underwater mountains whose crests are the Aleutians, liquid fire flowed and bubbled. The outpourings cooled into volcanic cones. So the two mountain systems lie today—a crumpled, water-formed range with clamshells in its summit, intermingled with a line of new volcanoes breathing fire.

Island-making continues. Currently under construction is an odd little isle called Bogoslof, "The Voice of God," which at last report lay about thirty-five miles northwest of Dutch Harbor. Bogoslof was, for the moment, four hundred feet high at its twin western peaks and populated with enormous sea lions and millions of birds. It may not be there at all today. Since it first popped up in 1796, it has been bobbing around

the Bering like an unmoored buoy and changing its appearance as often as a mad character actor.

The changes are easy to explain. Bogoslof is an active volcano with its crest just at sea level. The eruption which brought it above water in 1796 left a lone island, now known as Castle Rock. Nearly eighty years later another major blow-up produced a second island. For a time the two were connected by a spit, but in 1890 the link disappeared. In 1906, Bogoslof heaved up two more islands in rapid succession, the second—McCulloch Peak, knocking off half the first as it emerged. McCulloch, 450 feet high, looked down on Bogoslof; but it did not stay long. A year after its birth it disappeared with a hiss and a bang. But 1909 brought two new ones, which still stand.

Bogoslof continues to misbehave. Although it has kept its shape in recent years, Castle Rock was five miles out of its charted position when the Coast Guard Cutter *Northland* dropped by on a routine call in 1927. This was probably due to a faulty chart but fishermen claim the island moves. They avoid going near the volcano. From time to time it belches gas bubbles big enough to upset a small boat, and every year or so it throws up ash and acid. Its rumblings can be heard on Unalaska, bringing memories of the first eruption, when the frightened Aleuts christened the roaring monster "The Voice of God."

The Coast Guard Cutter *Tahoma* reported of one of the minor eruptions:

"Forked lightning in the direction of Bogoslof was seen before daylight, and when Bogoslof was sighted the central peak was seen to be in a state of eruption. Immense clouds of vapor, smoke and ashes issued from the peak and enveloped the entire island. Flames were reported at the peak, and lightning followed by thunder appeared in the cauliflower cloud of smoke and volcanic dust which rose to a height of several thousand feet above the island."

Sometimes the eruptions occur far below the surface. On

April 1, 1946, the explosion of an underwater volcano off Unimak Island sent tidal waves racing across the Pacific to ravage the city of Hilo in Hawaii, batter the California coastline, and ripple harmlessly into Sydney harbor, half the world away.

Year after year the fire mountains work fitfully at pouring more rock onto the Aleutian islands; the weather and water work steadily at grinding away the stone. It is a strange contest.

The underwater Aleutian range is roughly ninety miles wide at its base. It rises from great depths. Just south of the Chain's 8000-foot peaks, a groove in the ocean floor returns soundings of more than 24,000 feet. The Bering is not as deep (its northern and eastern fringes are shallow enough to freeze) but it goes down 12,000 feet at points near the Aleutians.

Textbooks say that large, deep bodies of water normally exert a moderating influence on climate. The Pacific Ocean and the Bering Sea work together in keeping Aleutian temperatures even. At sea level the islands do not get extremely cold or hot. Summer temperatures are in the sixties; winter lows approach zero; the January mean is twenty degrees.

But the co-operation between Bering and Pacific ends with the thermometer. The Bering is cold. Its winds run a thousand unbroken miles from the Arctic. The Pacific near the Aleutians is warmed by the Japan Current, which sweeps along the southern side of the Chain. Warm air can hold more water than cold, and the winds blowing over the Japan Current get both warm and wet. Reaching the islands, this warm air is forced up the sides of the mountains; it cools as it rises and eventually collides with the cold air of the Bering. Then the invisible moisture puffs into clouds. Sometimes the clouds cling to the peaks, sometimes they fog the shores, sometimes they echo the shape of the mountains, and where before there was one snowy range there are two—one firm, the other floating.

When the clouds get cold enough they drop their rain. It rains a lot in the Aleutians.

Williwaw

Wind and rain have rutted the mountains. In the ravines cold air settles, and eventually the ball of cold air rushes down the slope. This fast-moving, erratic avalanche of wind is the williwaw. It follows the path of least resistance through the warmer air, and its course is as unpredictable as that of a great broken-field runner. At one Aleutian post where I was stationed our camp area was above a wide swamp; a summer pastime was to sit on the bluff and watch the wee williwaws bend the swamp grass as they raced in twisting, uneven bursts across the field.

There is another type of williwaw. By common consent the term has come to be used for any severe storm. When the Aleutian GI speaks of a williwaw, he usually means a winter gale rather than the sudden, shifting, soon-ended mountain winds. The gales are strong, very, very strong. They carry snow and rain and they hurl their cargo flat and hard. "It doesn't rain in the Aleutians," the soldiers say, "it rains in Asia and blows over."

The gales are a menace. They take lives and destroy installations. They are powerful enough to rip up sections of steel runway and bend them into knots. Here is a GI's description of a williwaw that struck our communication outfit on Adak in the winter of 1943-44:

"The wind quickly picked up to a gusty thirty-five miles an hour, pelting the swing-shifters returning from supper with marble-sized hailstones. Before darkness closed in to hide the storm's intensity, doorway observers witnessed entire Pacific hut sections whipped into the air and tossed hundreds of feet before a gust would quiet sufficiently to allow gravity to take over.

"Flying objects made outside travel extremely hazardous. Fallen wires from telephone poles and fallen V's littered the area—but aided emergency crews in holding the ground after walking upright became impossible. Crawling on hands and knees was the only way one could move outdoors.

"Up-to-the-minute weather and wind reports showed wind velocity climbing over the seventy-five-mile mark with gusts attaining a hundred miles an hour by eight P.M.

"With no warning, a hundred-foot steel pole snapped at its base before the anxious eyes of nearby crews and disappeared from view, dragging antennae and guy wires behind it. A Chic Sale, window glass still intact, sailed past the operations door, never to be found again. Flying debris ripped holes in wood-roofed Pacific huts. Full oil barrels, long embedded in ice and snow, broke loose and rolled unimpeded through the area.

"Linemen, concentrating on the power for the station, managed not only to keep the circuits on the air, but most of the living quarters lighted. Several of the boys narrowly escaped serious injury as jagged sheets of quonset roofing viciously cut the air near where they worked to disentangle fallen aerials.

"One private lost his glasses. They were whipped off his face by the wind. The next day they were found, unharmed, a quarter of a mile away, lying on the snow.

"A direct teletype, connecting operations with one of the local headquarters, typed out—'There goes the roof and furniture. Geez. You should see these guys scramble.'

"As the storm neared its height around midnight the graveyard chowhounds opened the door of the messhall storm porch —only to have the door and the entire porch fly off into the night.

"At the weather station the needle quivered at the one-hundred-thirty-mile mark. Then needle, equipment, and accessories disappeared, ending all further forecasts for the storm."

This same williwaw drove a two-hole latrine through the wall of the Pacific hut housing a general. And airmen, caught aloft in the gale, reported gusts of two hundred and thirty

miles an hour. Their instruments are accurate to within ten miles an hour. If the airmen's reports are recognized by the Weather Bureau, they will set a new hurricane record for the hemisphere.

Mud and Flowers

The product of this steady work of wind and water on the mountains is dirt. The rocks, washed and chaffered away, slowly disintegrate. Their sediment washes and blows down into the valleys; some of it reaches the sea, some settles in the hollows and on the flats. Vegetation lies and dies and adds to the depth of the dirt.

When Aleutian dirt is deep enough, it is called muskeg. And muskeg is called many other things, few of them printable. Corporal John Haverstick, a correspondent for *Yank*, tidied up the soldiers' opinion when he said, "Muskeg is just like manure. It's wet and spongy all the time."

Muskeg seems to have been made to drive engineers mad. It won't hold. Poles set in muskeg tip sideways in a day or two. Runways laid on it sink out of sight. Buildings embedded in it list. Since nearly every spot in the Aleutians that is level enough to hold a building is plastered with a yard or more of muskeg, the engineers have to dig. They call on the cats and the cat-skinners to roll back the tundra. It is slow, cold, wet work, difficult and dirty, and the catmen hate it. "When I get to hell," a bulldozing buck-sergeant told me, "there's only one thing I'm afraid of. That sonofabitch may toss me in muskeg instead of fire."

Bad as it is for modern builders, muskeg made native life possible in the Aleutians. Into the muskeg the Aleuts dug their homes, leaving only the sod-covered roofs bulging out. This is still the ideal housing arrangement for the land of the williwaw; most Army huts are at least half-buried against the gales.

✓ Muskeg is fertile. As soon as it appears, plant life flourishes.

Already on the new rocks of Bogoslof, there is dirt—and life. A botanist visiting the island in 1932 found beach pea, sea grass, and the pastel flowers of *mertensia maritima* growing in the sulphurous soil near the beach.

Where the mud is deep it produces wild vegetables, abundant enough to support human life. Shipwrecked sailors have lived for months on what they could claw from the moist dirt and find on the beach. The most common edible vegetables are cow parsnip, cowslip, petrusky, fern, wild rhubarb, and two tubers—lupine and Indian rice.

Indian rice is not rice. It is a small, brown lily which grows in the deep muskeg beds. The roots are a cluster of tiny, ricelike bulbs. Raw, they have a bitter taste that is difficult to cultivate; cooked, they taste like boiled starch. The bulbs keep indefinitely when stored in grass sacks and are an Aleut winter staple.

The lupine is a beautiful, bushy plant with a tall, long-lasting blue or purple bloom. Its root is eaten only in the late fall. Like Indian rice it is rather bitter, but it is easier to eat.

The Aleuts call cow parsnip "poochy." It is a large-leaved, musky plant that grows near the beaches. It tastes like celery, and although an important part of the native diet, must be eaten carefully. When broken, the stalk emits a milky fluid which, if left on the skin, acts like poison ivy. Petrusky is another all-around food plant that grows near the beaches. The natives eat its leaves, its stalks, and its roots, either raw or cooked.

Cowslip grows in swamps; it has a flower like a yellow water lily and its leaves can be eaten raw or boiled; cooked, it tastes, unfortunately, like spinach. The ferns grow in ravines. They are eaten raw as salad, but can serve as seasoning for fish in cooking. Wild rhubarb is smaller and more astringent than domestic rhubarb, but not bad.

Few of the native plants have found their way into the Army's Aleutian messhalls. But some of the soldiers have raised victory gardens. Like most amateurs they produced more radishes than they could use.

Wild berries are abundant in the eastern Aleutians. First to ripen and most important is the crowberry, a type of low heather found in the thin soil of the uplands. Its berries are black, abundant, and slightly bitter. They form a large part of the summer diet not only of the Aleuts but of the foxes and fowl. When dried, the heather makes the best natural fuel in the Aleutians; the natives also use it for mattresses. Blueberries, thimbleberries, salmonberries, and lowbush cranberries are also plentiful. Most of them ferment admirably.

It is not strictly true that there are not trees in the Aleutians. In addition to clumps of spruce the Russians planted on Unalaska and Amaknak Islands, there are willows; but since the willows are dwarfs, literally no larger than violets, they are easy to overlook.

No one is certain why the Aleutians are treeless. The soil is not bad, the climate not too cold, and trees grow on the Peninsula, where conditions are very similar. The best explanation seems to be that the Ice Age killed most Aleutian vegetation. Birds and winds have carried the seeds for the return of plant life, but gale, cold and distance have combined to prevent natural forestation.

Someday the Aleutians may produce fir as well as furs. The Army has planted several thousand trees on some of the major islands.

Odds and Ends

Forget, for the moment, what you have heard about the Aleutians.

They are cold, but not as cold as New York State.* They are barren, but not as barren as western Kansas. They are foggy, but no more fogbound than Maine. They are habitable—white men have lived in them for nearly two centuries, natives for at least ten. They are not in the Arctic, nor near

* See Notes, "Weather."

it. Ushuaia, the most northerly, is a thousand miles south of the Arctic Circle; it lies south of Moscow, south of Glasgow, south of Copenhagen. Adak, in the central Aleutians, is nearer to Midway Island than to northern Alaska. London, Berlin, Warsaw and Rotterdam all lie farther north than Amchitka.

Geographically, the Aleutians are not "a sword pointed at the heart of Japan," but a curved saber reaching for the side of Russia's cold Kamchatka Peninsula. The tip of the saber is Russian territory—Bering Island in the Commander group. The most westerly American spot is Attu, directly north of New Zealand and so far out in the Pacific that the international date line has to jog to keep the island in the same day with the rest of America. The handle of the Aleutian saber is the volcanic Alaska Peninsula, which belongs geologically to the island rather than to the mainland.

Between seventy and a hundred and fifty islands make up the Aleutian Chain, depending on where you draw the line between an island and a rock. They are divided into five major groups—the Fox Islands, the Islands of the Four Mountains, the Andreanofs, the Rat Islands, and the Near Islands.

The groups were named by the Russians, which accounts for the disturbing fact that the Near Islands are the farthest out. Most Aleutian nomenclature seems to be based on mistakes, including the word "Aleut" itself, which is believed to be based on an error and a corruption. Siberian natives used the term "kitchen eleat" to describe an island people who lived to the northwest—probably the St. Lawrence Eskimos. When the Russians reached the islands they applied "kitchen eleat" to the natives of the "Catherine Archipelago." But soon the natives were "Aleuts" and the islands "Aleutians."

II.

THE PEOPLE

1. The Aleuts

Their behavior is not rude and barbarous, but mild, polite, and hospitable. At the same time the beauty, proportion, and art with which they make their boats, instruments, and apparel evince that by no means do they deserve to be termed stupid, an epithet so liberally bestowed on those whom Europeans call savages.

—Martin Sauer

2. The Russians

As soon as we saw it, we settled on this solid strip of land. . . . We are not after rank or riches, but agreeable brotherhood. Yet what we have earned through striving and toil our descendants will give thanks for.

—Alexander Baranof

THE ALEUTS

A FOG THICKER than the mist that covers Kiska blankets the early history of the Aleuts. No man knows when they came to their treeless islands, nor from where. Even the direction of their approach is disputed by authorities; a minority holds that the Aleuts came from Asia, the majority says from America.

The best evidence indicates the Aleuts are cousins of the Eskimos; in fact, that they once were Eskimos. This theory is based on a few bones, a few tools, and more than a few guesses. It runs as follows:

Men from Asia crossed into America by way of the Bering Straits. Pushed by climatic variations, the migrants moved south, and as the ice receded they followed it back. A group

settled in the Great Slave Lake region of north central Canada—these became Eskimos. After a hundred years, or a thousand, climatic changes caused by the retreat of the ice made them move again. They went north to the ocean, then west to the Bering; on the shores of the Bering they remained for a long time, developing a higher culture, much like the Eskimo culture we know today. Again conditions changed and again the Eskimos migrated. Some went back east and reached Labrador and Greenland. Others went south, along the shore of the Bering, out along the Alaska Peninsula, along the islands from Unimak to Unalaska, from Unalaska to Umnak, from Umnak to Atka, all the way along the Chain to lonely Attu.

There are objections to this theory. The strongest is that the bones of the Aleuts do not resemble the bones of Eskimos. Aleuts are broad-faced, Eskimos thin-faced. The advocates of the American migration idea suggest that the southbound Eskimos found a more primitive population on the islands and Eskimoized them culturally while being absorbed physically.

One outstanding ethnologist contends that both pre-Aleuts and true Aleuts were living on the islands west of Umnak at the time of the Russian voyages of discovery, a possibility which necessarily complicates the study of all old reports on how the islanders looked and lived. One bone collector found deposits from an Aleutian aboriginal civilization so primitive that it did not seem to have known fire; his colleagues dispute his deductions.

The Aleuts' language is not much like Eskimo—but it is more like Eskimo than any other tongue. Again the experts disagree: some say the languages are definitely related, others say they are as far apart as English and Cherokee. There is further dispute as to whether either or both tongues have a distant connection with Lapp, Finnish, and Hungarian. The language is colorful. Take, for example, the calendar. March is "The Time of Eating Straps" because it was the last month of the winter fast; June is "The Time of Fat Young Seals

and Birds' Eggs"; and November is "The Time for Hunting Seals in Disguise."

Whatever their antecedents, the Aleuts prospered. The largest settlements were on Unalaska, Umnak, Atka, Adak, and Attu, but nearly all the islands were inhabited. The Aleutians were as thickly populated one hundred and fifty years ago as any part of the continent. And from the early reports can be put together a picture of a life which was not all bad.

Lo, the Poor Aleut!

The Aleuts were communists. Without benefit of dialectic or dictatorship they practiced a primitive form of socialism. A man could possess private property—his clothes, his tools, his trinkets, his weapons, a winter house. But his right to them hinged on use: an Aleut who could not paddle his bidarka, throw his harpoon, bend his bow, had to yield them to a hunter who could. Nor could an Aleut who owned a kayak inherit another unless he really needed two.

Nearly all production stemmed from the hunt, and the hunter did not kill for himself alone but for the community. He had first choice of the meat and skins from his kill; he could see that his friends received choice cuts; but what he did not use went into the community storehouse and thereafter belonged to anyone who needed it.

There was no compulsion, but all Aleuts were expected to work. The man who did not labor was fed—but publicly despised. The system produced few goldbricks.

A Russian priest who lived with the islanders while they retained many of their pre-discovery habits, reported that: "It was regarded as disgraceful to fear inevitable death; to meekly beg for preservation from an enemy; to save one's life and freedom by deceit or treachery; not to kill even a single enemy in one's life and thus die; to steal the property of others and be convicted in thievery; not to know what to do against

one's enemy; to turn over one's boat in a harbor, especially at a reception; to fear to ride in the sea in fresh wind; in the time of need or in the long fishing trips, to weaken and allow oneself to be towed; in the division of spoil to be dissatisfied and show openly his greed (on such occasions all the rest brought him their parts in derision); to reveal to the wife or mistress a public secret; having been hunting in twos, not to give the better part of the capture to his companion; to brag about one's doings and especially such as did not happen; and in anger to upbraid another. Besides this the Aleut is ashamed to beg for anything, even in the utmost need; to pet one's wife before others; to come out into the middle of a gathering and dance, even though well able to do so; to trade personally; and he blushes when they praise him before others."

In everything the community came first. Consequently punishment was predicated not on ideas of abstract justice but on the need to protect the tribe. A cold-blooded murder might go unpunished if it seemed likely the murderer would not repeat his crime. An insane killer was a danger to the tribe: he was at once executed or banished.

There were few fights. Men who quarrelled sometimes met before the whole community and made fun of each other in verse. The loser in this lampooning lost face in the tribe and sometimes committed suicide.

Most crimes of violence stemmed from sex. The Aleuts had strange sexual ethics. There was polygamy: brothers and cousins shared matrimonial rights and obligations. Ad-lib intercourse was not considered important, certainly not grounds for jealousy. It was good manners for a man to loan his wife to a newly arrived stranger, and hunting partners swapped spouses continually. An Aleut would lie under his furs unperturbed, while three feet away his wife and best friend copulated. A man might sell his spouse for a bag of fat.

Yet if a man wanted another's wife for keeps—to make his clothes and chew his furs and trim the wick of his seal-oil lamp as well as share his bed, there was murder.

Around crimes unpunished by the community arose a code of blood vengeance, family feuds. Many an Aleutian Hatfield lay in the tall grass waiting for the grandson of the Mongolian McCoy who had killed grandpappy. Feuding continued until the males of one family were exterminated. Yet an Aleut who killed another to take his wife would raise his victim's children as his own, spoiling them as all Aleut children were spoiled, although when grown they would be duty bound to try to kill him.

Some of the feuds grew into intertribal or interisland wars. But most of the big, bloody disputes were over fishing and hunting grounds, or over deposits of obsidian, the brittle rock used in making spear tips and hunting knives. The farther east, the more crowded were the islands and the bloodier the wars.

When the Aleuts went to battle they sometimes wore armor of linked wood or ivory, strangely Oriental. They fought with spears, stone knives, and bows and arrows. Most of the battles were actually raids—the war party, travelling in big skin whale-boats, *umiaks*, would land near the enemy village and attack in the dark. If successful they carried away a few prisoners as slaves. Slaves belonged to the community and were treated badly.

In wartime the chief had absolute authority. He was not formally elected—there was no campaigning, but merely agreed upon by all adult males. The honor usually went to the best hunter, although some islands had hereditary leaders; this was especially true after the coming of the Russians, who liked to deal with permanent authorities. When a war ended, the chief's powers to coerce ended with it. In peacetime he could only persuade. But since most of the community's life centered around the hunt and the chief was the acknowledged expert in the chase, his opinions usually prevailed.

The islands produced little game, the sea much. The Aleuts in their tiny bidarkas and their big umiaks hunted everything from the salmon to the whale, from the herring to the sea lion.

No better paddlers ever lived. Aleut mothers exercised their babies by manipulating their arms in the push-pull stroke of the double-bladed paddle. Boys could handle a bidarka as soon as they could walk, and the short-legged Aleuts could rather go a hundred miles by boat than five by land.

The bidarkas—kayaks made of skins stretched over driftwood frames—are acknowledged to be the most seaworthy smallcraft ever constructed. When the williwaw was blowing, tearing the surface off the smoky sea, hurling huge waves and sheets of spray over the jagged reefs, an Aleut would slip into his waterproof jacket of transparent sealgut, lace the bottom of the glistening, stinking garment into the opening of his kayak's cockpit, and have his friends throw him off a cliff into the foaming Bering. Once afloat he feared nothing.

When whales were sighted, the hunters put on their best clothes in honor of the guest who had come to be killed. The whalers, most honored of hunters, brought out their poisoned lances and took their position in the bows of the umiaks. Young men manned the driftwood sweeps and the thirty-foot umiaks, convoyed by flotillas of twelve-foot bidarkas, set out after the eighty-foot behemoths. When possible the paddlers ran the whaleboat alongside the monster, as near to the head as possible, and the harpooners struck from less than a yard.

Unlike the Indians to the south and the Nantucket whalers who came later, the Aleuts seldom tried to ride the tiger; they did not keep their umiaks fastened to the whale. The Aleutian solution to the problem of what to do with eighty tons of harpooned horror was to drive as many poisoned harpoons and heavy lances, with seal-bladder buoys attached, into him as possible. Dragging the buoys slowed the big fellow and kept him near the scene of the attack; the poison killed him. Usually he washed ashore within three days.

Only the harpooners knew how to make the whale-killing poison. They kept their art surrounded with mystery; Aleutian rumor, widely credited, had it that they distilled the death juice from the fat of human corpses in rites conducted in the

sea caves at the time of the new moon. It is more probable that they used the highly poisonous root of the monkshood, abundant along the Chain.

To kill seal and sea otter the Aleuts used neither poison nor the heavy harpoon but another secret weapon, the bladder-dart—a beautifully built precision instrument. It was a small, barbed harpoon with a detachable head fastened to the ivory-fluked shaft by a thong of whale sinew. Small bladders were tied to the shaft. In throwing the dart the Aleut used a two-foot catapult stick which served as an extension of his arm and gave extra power and distance to the cast. An Aleut could hit a seal at a hundred and fifty feet from a moving kayak.

When struck, a seal dived. The head of the harpoon worked loose, the bladdered shaft floated on the surface and marked the underwater course of the wounded animal. The Aleut paddled after it, and when the seal surfaced he stabbed it repeatedly with a long-bladed lance.

If the first throw missed, the hunter shouted to make certain the quarry would dive and, also, to call the near-by hunters in for the kill. Their bidarkas formed a circle around the spot where the animal went down. When it came to the surface everyone threw. If they missed again, they waited and tried once more. If one man hit, the animal was his; if more than one dart was in the seal, the man who came closest to the head got the prize.

Aleuts loved the sea otters and felt a kinship with the playful, brown-furred creatures which like themselves sported in the surf and were more at home in the cold water than ashore. "We live like our brother, the sea otter," the natives told the first Russians. In hunting their brother, the otter, they endeavored to decorate their boats, robes and all darts as nicely as possible, believing that the otter loved female handiwork and would come to the dashing hunter. The catches, though considerable, did not upset the otters' reproduction cycle. Aleut and otter prospered.

The Aleut Underground

In a hostile land of hurricanes, the Aleuts went underground. They dug their *barabaras*—pit houses—into the gently rolling hills, threw up rounded roofs of sod, and used holes in the ceiling as both chimney and door. The houses were huge. Sometimes the entire village lived in a single barabara, each family having a mat-screened section near the wall. The raised central floor served as the general kitchen and workroom.

A woman's place was in the barabara. Although she ventured out to pick berries, dig roots, pry mollusks from the sea rocks, and comb the beaches for precious driftwood, most of her life was spent sitting on her heels by the blubber-burning stone lamp which supplied both heat and light. And, of course, her work was never done.

She was a better seamstress than cook, for most of the food was eaten raw. But unless she could sew a waterproof seam in sealskin, walrus hide, or birdskin, with a dried tendon knotted tightly around an eyeless bone needle, she was no fit wife. "A man is the hunter his wife makes him," the matriarchs boasted, and though her husband probably did not agree that his skill at the kill rested on her needlework, he did not want to hunt in clothes that sieved the wind and water.

When she was not sewing, the Aleut woman worked on the skins, chewing them soft. Or she wove the beautiful, watertight baskets that are still the delight of the collector. But usually she sewed; she sewed so much in the dim light of the sunken house that she had an even chance of going blind.

In summer, clothes were unimportant. Men and women went naked except for little aprons to cover their genitals. The aprons were a concession to the gods, not the Grundys, for evil spirits were thought to attack through the sexual organs.

But in winter, when the snows were deep, the winds violent, and the dark waters of the Bering cold enough to kill a swimming man in twenty minutes, clothes were all-important. The basic garment for both sexes was a loose, hoodless smock,

made from otter pelts or the skins of birds. It reached below the knees. Aleuts seldom wore pants; most of the legs were covered by elephantine sealskin boots.

When taking to the water, the men put on gut-skin *kamleikas*—completely waterproof and made to fasten into the rim of the kayak cockpit. Unlike the Eskimo parka, the kamleikas were seldom hooded. Instead, the Aleuts wore rain hats carved from drifted spruce, fantastically painted in reds and greens, and sometimes stylishly trimmed with walrus whiskers.

Coming into the barabara during a storm, an Aleut was careful to clean his clothes. He beat off the loose snow, then used a special snow brush to get rid of moisture. Wet clothes rotted. Inside the overheated pit house men and women went naked except for their two-by-four aprons. This tended to increase the birth rate and decrease the death rate; when missionaries broke the Aleuts of their healthy indoor nudity by convincing them that Christ wanted them to wear clothes indoors, many died of pneumonia. They kept their houses as hot as ever and made the mistake of going out into blizzards in sweat-wet clothing.

Surprisingly, barabarars had bathrooms (it is possible these were not introduced until the Russians came). Next to the sleeping quarters the Aleuts dug a special pit with a narrow chimney hole which could be covered with a grass mat. They heated rocks over a pit fire, placed them in the center of the room, closed the chimney hole, and threw water on the stones.

Sometimes, to work up a more satisfactory sweat, they rubbed themselves with a mixture of snow and urine. It was good for reducing, bad for b.o. The women washed their hands and their hair in urine, a practice which sometimes resulted in bleached blondes.

To a God Unknown

The Aleuts had no formalized religion. They seem to have believed in spirits—both good and evil, in reincarnation of

man and beast, and in an all-powerful Force, neither good nor bad but potentially dangerous and hence to be propitiated.

Their legends, by which they explained their natural surroundings, were charming. Take, for example, the Unalaska Islander's story about the volcanoes, as reported by a Russian priest:

"At one time all the fire-breathing mountains found on Unalaska and Umnak began to dispute among themselves which was the foremost in regards to the quantity of their internal fires; and after a prolonged quarrel, in which none of them wanted to give up to their opponents, they got the idea of trying the matter; and thereupon among them arose a general frightful encounter, prolonged for a number of days, when they bombarded each other with fire and rocks. But the smaller volcanoes were not able to stand against the large ones and, seeing their weakness, they from despair exploded and were extinguished forever. Finally there remained only two volcanoes, Makusinskaia on Unalaska and Recesnaia on Umnak. Having overcome all the others, they entered into a duel between themselves, most frightful and destructive for all of their surroundings. Fire, rocks, ashes were thrown by them in such quantity that they annihilated all living things of the neighborhood and even the air became heavy. But the Umnak volcano finally was not able to stand against its antagonist and, seeing the impending destruction, gathered all its powers, distended, exploded and became entirely extinguished; the Makusinskaia, remaining the victor and unharmed, and not seeing any other enemies nearby, quieted down and to this time rests, smoking a little."

According to the same priest, "The Aleuts had no temples or idols, but there were sacred or forbidden places, and also the offering of sacrifices to unseen spirits. Some such sacred place was found near every settlement, and consisted in some hillock or some noteworthy place on a cliff, which was strongly forbidden to be visited by the women or the young men, and from which it was forbidden to take grass or pebbles. If any

of the young fellows, from brag or curiosity, transgressed this law, such a transgressor would not remain without being punished; he would without fail be overtaken by a terrible wild sickness, or by quick death, or, at least, he would lose his mind. The old and elder men could visit these places, but only for the purpose of bringing offerings. The offerings consisted of various things, especially of skins of animals, or special feathers of certain birds; and the offering was accompanied with a little ceremony, and a prayer for aid in some undertaking."

The lives of the Aleuts were governed by taboos, the most important of which concerned birth and death. Although their pelvic bones are narrower than those of European women, Aleuts at that time usually had light labor. Delivery was made from a kneeling position, sometimes with the help of two midwives, sometimes (in the more taboo-tied tribes) unaided except for instructions relayed by women outside the delivery room.

After giving birth, a woman had to cook her own food for a specified period. She was considered unlucky for the hunt, and under pain of physical punishment could not eat any game currently being stalked.

Marriage was entered into casually. Girls were marriageable after their first menstrual period, boys after puberty. Young people usually "married" three or four times before finding a life-mate. No merit was accorded virginity, nor was perversion despised. Some mothers raised their sons as girls, training them to fulfill all the duties of a wife. These boys did not lack husbands.

"There is no ceremony in marriage," an early explorer reported. "The ability to support women gives the authority to take them, with their consent; in which case the couple are conducted by the relatives of the girl to the vapor bath, which is heated, and they are left together; but some present is generally made to the girl's father and mother."

Death was accepted with little mourning. In time of com-

munal stress, the aged might be sacrificed for the good of the tribe. Suicides were not infrequent. There were no elaborate funeral rites, but burial was performed according to ritual. On some islands the dead, especially the important dead, were buried suspended in their bidarkas. More often they were entombed in caves in a sitting position.

According to one ethnologist, "Parting with the dead was deferred as long as possible; the corpses were kept in the dwellings, relatives sitting nearby and watching and sleeping near them. Fear of the dead, at least of related dead, was unknown to the Aleut. . . . Judging, however, from the excavation of burial-places, no uniform method of disposing of the dead prevailed. The present Aleut tells how their ancestors kept the dead, attired in their best clothing, in their living-rooms, before the final disposal. Mothers kept dead infants for months, and very often for a whole year, carrying them around as when alive or rocking them in cradles."

Often the bodies were embalmed by being placed in a cold, fast-running stream for several days, then gutted, and the intestinal cavity filled with moss and herbs. In the cool caves near the bases of the drowned fire mountains sit hundreds of entombed Aleuts.

THE RUSSIANS

The modern history of the Aleutians begins in the sixteenth century with a Volga badman and an ambitious tsar.

The tsar was Ivan the Terrible; the badman, a Cossack chieftain known as Yermak Timofiev. Ivan sought to impose discipline on the sprawling mass of European Russia. He fought to bring to heel the *hetmen*, the individual chiefs of the wide open spaces. One such hetman was Yermak Timofiev, whose plundering band Ivan thought a menace to trade and order. The tsar dispatched an army against the Caspian Cossacks and, resenting this restriction of their private initiative, the raiders quit the country. A thousand strong, Yermak's

band rode through the Ural passes, going east where three centuries before the Mongol horsemen of Genghis Khan had swept west.

They exploded into a vacuum, the vacuum of Siberia. Wider than thought, empty, the land stretched east and east and east. Three hundred years before this had been an empire, a land united under despotism, organized, disciplined. The horsemen of the *yam*, the Siberian pony express, had raced unhindered across the great plains, carrying the Mongol's messages faster than mail went again for six hundred years. But that day was dead, the empire was dissolved, the remaining tribesmen disillusioned of conquest, sick of fighting. The Cossacks rode over them.

Yermak the Hetman made his peace with Ivan the Terrible. He pledged the allegiance of his new lands to the Moscow monarch, and from a raiding bandit he was transformed into a patriot-hero. He dreamed of fighting his way to the far ocean. He did not reach the Pacific, but the sons of his Cossack raiders did.

They called themselves *promyshleniki*, frontiersmen; and they swept across the continent with a speed which makes the bridging of America seem glacial. Half a century after Yermak's death, they saw the Sea of Okhotsk. All Siberia belonged to them—and to the tsar.

The *promyshleniki* wanted more. China lay to the south, and it was rich. The raiders were few but conquest was their passion; the Chinese were many but they loved peace. Into Cathay, the frontiersmen cut like a swinging saber. Their first stroke sliced off the rich Amur valley. Their scouts probed for the heart of the empire. They lusted for the kill. And then the tsar heard what was under way in his new province. He was worried. There was much work to do in Old Russia without thinking of China, distant and unknown. On the maps China bulked large. China might be powerful and war would certainly be inconvenient—already there was a shortage of tea in court. Boris Godunov made peace.

Grumbling at the treaty terms, the promyshleniki withdrew. "Who told the tsar we lost the war?" they asked, for the tsar's emissaries had not only given up the Amur valley but agreed that the Russians should enter China only at two points named by the Chinese. The disgusted frontiersmen looked for new worlds to conquer, but they had come to the end of the known world. To the north lay the Arctic, to the east the sea.

Eventually they became hunters. They sought pelts with the same single-minded ferocity they had sought territory. Up the north-flowing rivers they pushed, taking tribute in hides from the natives, seeking and slaughtering the soft-furred sable. They killed well, so well that fur became Siberia's fame.

A fur business sprang up, and trading posts. Pale, blue-eyed businessmen from St. Petersburg and Moscow came to Siberia, moved among the bands of promyshleniki, dickered for furs, organized the trade. Eventually they formed fur dealers' guilds. There was trade with Old Russia—sleds of sable skins moving west through the long Siberian night. There was barter with China—shaggy ponies and jounce-gaited camels plodding across the Gobi bringing tea to trade for pelts. And then there were not enough skins.

The promyshleniki had killed too well.

The stream of furs moving to Moscow thinned. Barter at Fortress Mai-Mai-Cheng on the Siberian-Chinese frontier stagnated. Enterprising merchants sent agents to London to buy the furs Hudson's Bay Company trappers took in North America; these American pelts were used to keep the tea trade alive, but they were at best a stopgap. Soon the English would cut in on the tea business. If new furs were not found, Siberia would become a ghost continent.

Enter the Dour Dane

Vitus Jonassen Bering came to Siberia for science, not sable. His instructions from the tsar were to follow the Siberian

coast northeast to America. At the cost of his life he did it. But in dying he saved the fur merchants.

Like many another explorer, Bering found lands for a foreign ruler. He was a Dane. Born in Jutland of good family, he ran away to sea when young and, entering the tsar's navy, rose quickly to command, served with distinction, and then, temporarily in disfavor at court, retired to Finland. But the seven-foot tsar, Peter the Great, was a man who knew the sea and remembered his seamen. When he decided to have the east coast of his realm explored and contact established with America, he recalled the dour, efficient Dane.

In three sentences, Peter wrote orders for Bering to remake Pacific geography:

1. At Kamchatka or somewhere else two decked boats are to be built.
2. With these you are to sail northward along the coast, and as the end of the coast is not known, this land is undoubtedly America.
3. For this reason you are to enquire where the American coast begins and go to some European colony; when European ships are seen you are to ask what the coast is called, note it down, make a landing, obtain reliable information, and then, after having charted the coast, return.

Bering did just that. But even before he could start to carry out the tall tsar's first order, terrible difficulties had to be overcome. He had to transport across a continent not only supplies for the voyages but materials to build ships, even the materials to build the ways on which to build the ships. For three thousand miles Bering's men dragged ropes and canvas, spikes and fittings, even anchors. It took three years.

In much less time Bering built his ship, the *Gabriel*. By midsummer all was ready, and on July 9, 1728, he set sail, north by northeast, into the sea which bears his name. A month and a day out, he raised a bleak, volcanic island. Its whale-hunting Eskimo inhabitants called it Chibukak, but the Rus-

sians rechristened the volcanic hump in honor of the patron of the discovery day, St. Lawrence. Six days later the black mountain caps of Big and Little Diomede Islands loomed through the mist. Then fog closed in. As the *Gabriel* slid through the sealane between the continents, America lay under a cloud, unseen. Bering sailed on.

Asia curved away to the west, and the explorer followed the shore until he was sure it did not swing back. At sixty-seven degrees, eighteen minutes, he knew for certain: there was no land connection between Asia and America. He turned back east. Bering was to wait thirteen years before he saw America.

But he felt the continent was near. Through the long winter he paced the dark sands of the Kamchatka beaches, examining the driftwood blown in from the east, talking to the natives about their legends of big land across the sea. In the spring he set out to find it.

Like Columbus, Bering was always just missing discoveries which would underline the importance of his previous finds. Three hundred miles from the Aleutians a great storm crippled the *Gabriel* and forced Bering back. He sailed close past the Commander group, but again there was fog; his future graveyard lay out of sight behind the clouds. He charted more of the Kamchatka coast and then, supplies low, decided to return to St. Petersburg. He had not reached America, but he had information enough to remake the maps of the western Pacific.

Peter the Great, the tsar who knew the sea, was dead. On the throne sat Anna Ivanovna, who was intelligent enough to know what she did not know. Although she approved Bering's proposal for a second expedition, she felt unqualified to judge the details of his plan and turned that task over to the unashamed brethren of the new Academy of Science. Unfortunately neither Anna nor the Academicians knew how little the savants understood exploration.

After a quick look at the maps they had drawn from hearsay and hunch, the scholars told Bering it was impossible he had been where he claimed. He showed them the charts of the

Gabriel's voyage. They showed him their maps, drawn years before, which indicated land where the *Gabriel* had cruised. Obviously ships do not sail on land; perhaps Bering was just incompetent, but probably he was a liar. To make sure there would be no more mistakes, the scientists decided to accompany the Dane on his next trip, accompany him in great strength. His preparations must be revised to include a party of forty-odd Academicians. And since he was a foreigner and a liar, they would give the orders. His task would be to take the ships where they advised.

In place of Peter's simple three-sentence command, the Academy produced a sixteen-paragraph outline of a project. Bering was to map the coasts of Asia and America from Mexico to southern China, set up mail service between the Kamchatka outposts and the Chinese border, establish contact with Japan, and visit a number of places which existed only on the Academy's maps.

Bering groaned but agreed. Undoubtedly he hoped that once the scientists left the soft seats of learning in St. Petersburg, they would at least learn the facts of exploration. They were more stupid than he credited.

Going to Gamaland

With the necklace of academic albatrosses around his neck, the middle-aged mariner made his way back to Kamchatka. Seldom has as strange a caravan crossed a continent. The savants insisted on travelling in style. Across Siberia Bering had to haul a huge collection of scientific paraphernalia, a library, stocks of delicacies. And with every mile the scientists' contempt for the depressed Dane grew; he worried about details instead of superbly speculating on the glories of exploration.

By 1734 the party was established on the Kamchatka coast. Bering, a slow and cautious man, slowly got things done. Ships were built. A series of voyages, most of them com-

manded by his lieutenant, Alexi Chirikof, completed the survey of the Kamchatka coast. Japan was visited. And in 1741, at the age of sixty, the Dane decided he was ready for the final adventure. He called in the academic committee for approval of his plans.

The expedition's Kamchatka base was in the Bay of Avatcha on the east coast of the Peninsula. Bering proposed that they go east by north to the *bolshaya zemlya*, the great land of native legend. His proposed course would have brought the ships to the Aleutians—but he was overruled. The savants again produced their beloved maps. They pointed to Gamaland, a huge and nonexistent island they believed to be somewhere northeast of Japan. You must, they insisted, visit Gamaland on your way to America. They did not say “we must,” for all but a few of the Academy adventurers had decided to return to St. Petersburg and continue their explorations from armchairs. Bering, a far from forceful man, could not talk them out of the Gamaland junket. He did not withdraw his objections; he was simply overruled. Unfortunately he was too much a military man to disobey an order, however stupid.

On June fourth the expedition's two ships, *St. Peter* and *St. Paul*, put to sea from Petropavlovsk. And sailed south by east.

Bering's bad luck held. Two weeks out, in the watery area which on the Academy's maps showed the mountains of Gamaland, the two ships were separated, never to meet again. After a futile search for the *St. Paul*, the commander mutinied against the committee's orders. He had had enough of hunting islands that did not exist. Changing course, he swung up to the northeast. Still his fortune remained foul, for the new route carried him roughly parallel to the upward sweep of the eastern Aleutians. The deep water gave few hints of near-by land.

The trip was torture. Water went bad, rations were cut, the men grew morose; within them were the seeds of scurvy, the sickness of rotting gums, loose teeth, failing strength, and

deep mental depression. Bering, on the same short rations as the younger men, had no reserves to draw on. After twenty years of preparation for this final voyage, he was tired out, as stale as an over-trained athlete.

Not even success cheered him. On July sixteenth, six weeks out, the lookout sighted a massive, cloud-trailing mountain. They were almost due south of the present Alaska-Yukon border. America had been reached from the west; the barrier of the North Pacific had been broken.

The healthy were elated but not so the tired-out skipper. He merely said the mountain was to be named St. Elias after the patron saint of the discovery day, and then he stared moodily at the harborless shore. "No one failed to congratulate Bering, to whom above all others the honor of the discovery belongs," wrote a member of the party. "He, however, heard all this not only with great indifference but, looking toward the land, shrugged his shoulders in the presence of everyone on board."

Bering was thinking of the long trip home.

For two days the *St. Peter* coasted north by west, hunting a harbor. A party was put ashore on Kayak Island, which Bering mistook for a cape and named St. Elias. This christening washed off and the Indian name still holds.

The landing party was sent after fresh water. But going ashore with the seamen and the casks was a thirty-two-year-old German naturalist, Georg Wilhelm Steller, the most competent member of the Academy contingent.

While the sailors filled the casks with fresh water, Steller searched the island. He found a rude hut, but its inhabitants had taken to the hills. In the one room were some dried fish, a basket, and an arrow shaft or calumet. He took these meager trophies but, setting a precedent the promyshleniki did not follow, left in payment some silk, tobacco, a pipe, and a pot. Steller collected a few new ferns and flowers, and a new raspberry, now known as the salmonberry. A hunter, who had been signed to help him, killed several birds including "a

single specimen, of which I remember to have seen a likeness painted in lively colors and described in the newest account of the birds and plants of the Carolinas published in French and English, the name of the author of which, however, does not occur to me now. This bird proved to me that we were really in America." The Alaskan blue jay has since been named *Cyanocitta stelleri* in honor of its discoverer, the first white man ashore in Alaska.

Deliriously happy over the prospect of being first to catalogue the flora and fauna of part of a continent, Steller returned to the *St. Peter*. He reported to Bering what he had seen, and the skipper invited him into the cabin to share a rare luxury: a cup of hot chocolate. But after the naturalist had outlined his plans for a systematic study of the new land, Bering shook his head. He had been studying the mountain; the plume of clouds which stretched from St. Elias' cap had shifted. The wind was changing and the old seaman smelled storm. He was worried. He knew nothing of this coast. It was no place to be caught in a gale. They would sail at daybreak.

Steller protested violently. "Ten years for ten hours," he said bitterly. But Bering pointed out the dangers. They were two thousand miles from port, sick, and behind schedule. Rations were low. Going back they would have to buck the prevailing westerlies that had carried them east. What good would it have been to reach western America if they did not return. The other officers backed Bering. At sunrise the *St. Peter* started west.

Bering was right about the winds. They were westerly and they were strong. For days the little ship beat across the face of the gales, fighting for each mile. She slipped safely past the fur-rich, dangerous Sea Otter Rocks, coasted fog-shrouded Kodiak Island, passed Chirikof Island (which Bering named "Foggy Isle") and paralleled the Peninsula to the southwest.

Five weeks after starting back, water again ran low. Scurvy ate into the strength and will of the crew and the commander. Sighting a scattered group of treeless islands, Bering ordered

a party ashore for water. As the *St. Peter* neared land a seaman died of scurvy; his name was Shumagin, and Bering, himself near death, named the group after his stricken seaman.

Again Steller went ashore with the water party, and again he had trouble with the seamen. They began to fill the casks from the brackish pools near the shore and watched with indulgent amusement when the scientist stopped to test the water. He angrily announced that it was alkaline, that it would increase the ravages of scurvy; he pointed to a fresh stream a few hundred yards away. The officers overruled him; they tasted the water and said it was good. They told the men to fill up with the pool water.

Indignantly Steller stalked off. His anger faded somewhat as he studied the wild life—black fox, red fox, and marmots, “all sorts of water birds such as swans, auks, ducks, snipes, sandpipers, various kinds of gulls, divers, Greenland pigeons, sea parrots, and puffins,” and ravens and willow ptarmigans. Most important, he found “glorious antiscorbutic herbs” in abundance, enough to stock the ship’s cabinet with scurvy cure for all hands. Expecting gratitude for his discovery, he asked one of the officers to assign a detail to gather herbs. He was told to pick them himself. And so, feeling insulted, he picked only enough for himself and Bering.

Before the *St. Peter* could clear the Shumagins, a new storm blew up—an Aleutian special with high winds and a driving fog. For a week the ship lay in the lee of the island. The delay was disastrous for it held them back until after the start of fall storms to the westward. But it did set the stage for the first meeting between Aleuts and white men.

On the fifth day of their enforced layover the Russians were surprised to see two small canoes approaching through the mist. “When yet about half a verst distant from us both men in their boats began, while still paddling, simultaneously to make an uninterrupted, long speech in a loud voice of which none of our interpreters could understand a word,” Steller recorded in his journal.

"We construed it therefore as either a formula of prayer or incantation, or a ceremony of welcoming us as friends, since both customs are in use in Kamchatka and the Kurile islands. As they now came nearer constantly shouting while paddling, they began to talk to us intermittently, but, as nobody could understand their language, we only beckoned with our hands, that they might come nearer without being afraid of anything. They, in turn, however, pointed with the hand towards the land that we should come to them there, besides pointing with their fingers to the mouth and scooping up sea water with their hands as if to indicate that we could have food and water with them. . . .

"Nevertheless one of them came very near to us, but, before approaching quite close, he reached into his bosom, pulled out some iron- or lead-colored shiny earth, and with this he painted himself from the wings of the nose across the cheeks in the form of two pears, stuffed the nostrils full of grass (the nose wings on each side, however, were pierced with fine pieces of bone), and then took from the sticks lying beside him on the skin boat one of which was like a billiard cue, about three ells long, of spruce wood and painted red, placed two falcon wings on it and tied them fast with whalebone, showed it to us, and then with a laugh threw it towards our vessel into the water. I can not tell whether it was meant as a sacrifice or a sign of good friendship. On our part we tied two Chinese tobacco pipes and some glass beads to a piece of board and tossed it to him. He picked it up, looked at it a little, and then brought it over to his companion, who placed it on top of his boat.

"After this he became somewhat more courageous, approached still nearer to us, though with the greatest caution, tied an eviscerated entire falcon to another stick and passed it up to our Koryak interpreter in order to receive from us a piece of Chinese silk and a mirror. It was not at all his intention that we should keep the bird but that we should place the piece of silk between the claws so that it would not become wet. How-

ever, as the interpreter held the stick fast and by it pulled the American, who held the other end in his hand, together with his boat towards our vessel, the latter let go the stick, became frightened, and paddled a little to one side, and would not come so near again.

"Therefore the mirror and silk were thrown to him, with which they both paddled towards shore and beckoned us to follow in order that they might give us to eat and drink. All the time while these two islanders stayed around the vessel their companions on land called continually and shouted loudly without being able to make out their purpose."

A small party, including Steller, went ashore to meet the Americans. There the explorers tasted blubber and the natives tried brandy—neither was impressed favorably. When their hosts seemed reluctant to let them leave, the Russians fired three guns over their heads. No one was hurt, but the Aleuts were indignant. They motioned for the Russians to go away.

"As far as the personal appearance of the islanders is concerned," Steller wrote, "they are of medium stature, strong and stocky, yet fairly well proportioned, and with very fleshy arms and legs. The hair of the head is glossy black and hangs straight down all around the head. The face is brownish, a little flat and concave. The nose is also flattened, though not particularly broad or large. The eyes are black as coals, the lips prominent and turned up. In addition they have short necks, broad shoulders, and their bodies are plump though not big-bellied. All had on whale-gut shirts with sleeves, very neatly sewed together, which reach to the calf of the leg. Some had the shirts tied below the navel with a string, but others wore them loose. Two of them had on boots and trousers which seemed to be made after the fashion of the Kamchadals out of seal leather and dyed brownish-red with alder bark."

They did not approach the ship again, and two days later the *St. Peter* weighed anchor.

West by southwest they crept. In mid-September a williwaw drove them back to the southeast for three hundred hard-won

miles. Then again they worked along the southern edge of the Aleutians, catching an occasional glimpse of mountains and mistaking them for the mainland.

On October fifth, through a low, sweeping fog, they heard the roar of breakers and saw, close at hand, a rocky shore swept by great waves. It was Adak. Desperately they clawed away, fearful of the rocks.

Day by day the men grew weaker, the gales stronger. More islands, rocky and harborless, menaced them. Clouds of sea birds circled overhead in the constant fog, screaming wildly. The rotting canvas ripped, and the seams strained, and the sick men lived in lasting terror. Food ran out. They cut rations from a hot meal every day to one every two days, then one every three.

"Every moment we expected the destruction of our vessel," Steller recorded, "and no one could lie down, or sit up or stand. Nobody was able to remain at his post; we were drifting, under the might of God, whither the angry heavens willed to send us. Half our crew lay sick and weak; the other half were of necessity able-bodied, but were quite crazed and maddened from the terrifying motion of the sea and ship."

Another account says, "It had come to this, that the sailors who used to be at the tiller had to be led to it by two other sick ones who still were able to walk a little. When he could not sit and steer any longer, another in not better condition had to take his place. They dared not carry too many sails, because there was nobody who could have taken them down in case of necessity. The vessel was several days without guidance at all."

Early in November they passed the last of the Aleutians and on a changing wind drove close to Copper Island in the Commanders. They sighted the island, thought for a joyful moment that it was Kamchatka, realized in despair that it wasn't, and let themselves drift past.

Copper Island fell away, but another—larger and even more forbidding—rose from the slate sea. It looked like an island,

out the weary, dying men told themselves they were safe: Kamchatka, they cried, Kamchatka. We can land here on the Peninsula and walk home.

Bering knew better. He tried to tell the men they were still hundreds of miles from home, but they would not listen. If this were not home, they argued, it was impossible to reach home. Even as the debate proceeded, two more of the crew died. It was decided to land.

The ship was anchored off the bleak island. A storm arose. The *St. Peter* broke her anchor and drove toward the rocks. Hastily the crew threw over another anchor; it too failed to hold. The men strong enough to stand clung to the rail and watched a knife-edged reef rush at them. And then Bering had a rare bit of good fortune: a last great wave lifted the little ship over the rocks and dropped her in the sheltered lagoon beyond. For the moment she was safe.

Less than a dozen men were strong enough to make the first trip to shore. It took them a week to get their companions off the *St. Peter*. The survivors had little cause for thanksgiving. It was mid-November. The island was uninhabited, treeless, almost barren, and cold—bitter cold. They were sick and weak and hungry and lost. Yet most of those who made shore survived. They dug pits in the sandy beach and used canvas from the sails as covers. The gales raged continuously, sometimes driving rain under the covers, sometimes blowing in the beach sand.

In such a pit Bering lay, too weak to move. Steller nursed him. When the sand covered the dying commander, the naturalist scooped it away. One day Bering asked that it be left around him—it felt warm. Not long after, on December 8, 1741, Bering, conqueror of the North Pacific, died. His companions had to dig him out of the sand before they could bury him.

There were other deaths, thirty in all during the voyage, but somehow most of the stranded men clung to life. Steller

found plants that helped their scurvy. The strongest went hunting and came back with sea animals that gave both meat and fur. When the *St. Peter* broke up in a great storm, boards were salvaged from the wreckage and rude shelters built. The cracks were stuffed with fox furs.

Foxes were everywhere. They were worse than the cold. Unaccustomed to humans, they had no fear; the men were nauseated when they saw the foxes dig up the dead. Guards had to be posted by the men too weak to move, or the animals would have eaten them alive. The Russians tried maiming the animals but could not frighten them off. Nor could they bring themselves to eat fox meat after what they had seen; it seemed like cannibalism once removed.

When spring came the carpenters among the crew went slowly to work. From the driftwood and salvage of the *St. Peter* they gradually shaped an open boat. It was a rickety craft, less than forty feet long, and held together by pegs and thongs. But on trial runs it sailed. Better anything, the survivors thought, than another winter on the island.

And while the carpenters worked, Steller studied and took notes on the island life. He was a great naturalist and he had a great opportunity. Pulled together into a book, *Beasts of the Sea*, his notes remained for more than a century the only reliable work on North Pacific marine animals. Steller noted the difference in seals, describing two types: the true (hair) seal and the fur seal, the latter really a water bear. He described the enormous sea cow, a harmless two-ton monster with two legs and a tail, which grazed in the kelp beds along the shore. The sea cow was so defenseless that the Russians exterminated the great herds in a decade. But what excited Steller most was a little cousin of the weasel, *latax lutris*—the sea otter.

Steller had seen the sea otter before, swimming off the Kamchatkan coast. Siberian natives had killed a few and their furs were highly prized. But no Russian had ever found their breeding grounds before, and Bering Island swarmed

with the lustrous-coated creatures. They supplied the party with most of its furs, and the naturalist with a unique opportunity for study.

"The sea otter," he wrote in his notes, "is usually five feet long and three feet in circumference at the breast bone, where the body is thickest. The largest weighed, with the entrails, 70 to 80 Russian pounds. . . . The skin, which lies as loose on the flesh as in dogs and shakes all over when the otter runs, so far surpasses in length, beauty, blackness and gloss of the hair that of all river beavers that the latter cannot be compared with it. The best pelts bring in Kamchatka 20 rubles, in Yakutsk thirty, in Irkutsk forty to fifty, and at the Chinese frontier, in exchange for their wares, eighty to one hundred rubles. . . .

"Altogether, in life it is a beautiful and pleasing animal, cunning and amusing in its habits, and at the same time ingratiating and amorous. Seen when they are running, the gloss of their hair surpasses the blackest velvet. They prefer to lie together in families, the male with its mate, the half-grown young, and the very young sucklings. The male caresses the female by stroking her, using the fore feet as hands, and places himself over her; she, however, often pushes him away from her for fun and in simulated coyness, as it were, and plays with her offspring like the fondest mother. Their love for their young is so intense that for them they expose themselves to the most manifest danger of death. When their young are taken away from them, they cry bitterly like a small child and grieve so much that, as we came to know on several occasions, after ten to fourteen days they grow as lean as a skeleton, become sick and feeble, and will not leave the shore.

"When frightened they take the sucking young in the mouth, but the grown-up ones they drive before them. If they have the luck to escape they begin, as soon as they are in the water, to mock their pursuers in such a manner that one cannot look on without particular pleasure. Now they stand upright in the water like a man and jump up and down with

the waves and sometimes hold the fore foot over the eyes, as if they wanted to scrutinize you closely in the sun; now they throw themselves on their back and with the front feet rub the nose. Then they throw the young ones into the water and catch them again, etc. If a sea otter is attacked and nowhere sees any escape it blows and hisses like an angry cat. When struck it prepares itself for death by turning on the side, draws up the hind feet, and covers the eyes with the fore feet. When dead it lies like a dead person, with the front feet crossed over the breast."

After having killed near a thousand otters and made a few experimental voyages, the survivors piled into the open boat, which they called *Little St. Peter*. By guess and good luck they reached the Kamchatka coast. And when at last they sailed into Avatcha Bay, bearded, starved, clad in clothes made from poorly cured, rough-stitched pelts, their arrival caused tremendous excitement.

But it was not the reaching of America from the west which stirred the imagination of the Siberian homefolk. Nor was it the story of terror at sea. Instead they wondered at the garments of the returned voyagers, the rude coats of rich brown fur which had a silvery sheen when stroked. Here, thought the fur-conscious promyshleniki on seeing the otter skins, is something better than sable.

They asked the way to Bering Island.

They Also Sailed

Captain-Commander Vitus Bering has named in his honor the Commander (Komandorskie) Islands on which he was wrecked, Bering Island on which he died, Bering Sea on which he sailed, Bering Strait through which he passed, and Bering River and Bering Glacier which he never saw. Some of the land, sea, and ice might bear the names of such promyshleniki unpronounceables as Semjon Deshnev, Michael Gvosdev, and Alexi Chirikof.

Long before Peter the Great penned his brief orders for Bering to follow the Asiatic coastline until it merged with America, one of his Siberian subjects discovered that it could not be done: he tried and found the continents separated by water. Recognizing the importance of his discovery, he scrawled a report and submitted it to the military governor at the Siberian city of Yakutsk. The governor filed and forgot.

A lifetime later a browsing bureaucrat found the yellowing document. It was signed Semjon Deshnev, and told of a strange trip. Deshnev, a Cossack, had looked long at the great north-flowing Lena River. One spring he decided to follow it. With a few companions in an open boat less than twenty-five feet long, he rode north on the rushing waters of the summer thaw. Somehow they survived the rapids and the hostile natives. The river broadened into a bay, the bay opened into the Arctic Ocean, and the cruising Cossack turned east. He followed the treeless, tundra-covered coast for weeks, for months, sailing toward the rising sun. Then, still following the coast, he found the sun rising at his left; and one day it rose behind him. He had rounded the easternmost tip of Asia, passed through the straits that Bering breached but never saw.

Today the last land of Asia is called Cape Deshnev. But because of a bureaucrat's blunder, the strait Semjon Deshnev discovered bears another's name.

Four years after Bering rounded Cape Deshnev and nine years before he turned his back on Mount St. Elias, a seafaring geodesist named Michael Gvosdev saw America. He mistook the continent for an island.

Gvosdev was in charge of charts on a Russian amphibious operation against the natives of north Siberia. The entire campaign was under the command of a Cossack named Shestakof, who planned a land attack against the mainland natives and a naval assault on the coastal peoples. The whole thing fouled up badly: Shestakof's small army was ambushed and the commander was killed. The naval force wandered around in the Bering for a few days and tried to land at an island,

presumably Big Diomede. The natives wouldn't let them ashore. Later the one-ship task force put in at Little Diomede. The captain of the ship was ill and command fell to the surveyor Gvosdev. When the weather cleared and Gvosdev saw a long, low coastline to the east, he decided to call off the war and go exploring.

For several days, according to his journal, he followed the shores of the big island, never suspecting it was America. He saw dwellings on the sandy beach, and a few natives. But apparently he saw few animals, for when the water shoaled up and he turned back, his accounts of the great island aroused little excitement among the promyshleniki. Russians sometimes refer to the Diomedes as Gvosdev's Islands, but not even a reef officially bears the name of Michael Gvosdev, first white man to sight Alaska.

Robbing Paul to Pay Peter

Another man ahead of Bering was his assistant, Alexi Chirikof, second-in-command of the Great Kamchatka Expedition and skipper of the *St. Paul*. When the sister ships were separated in the fog below the Aleutians, Chirikof did not turn back to Kamchatka as Bering supposed but kept sailing east. On July fifteenth he sighted, dim in the distance, a rolling, forested coast screened by islands. He was off the southern tip of the Alaska panhandle, almost due west of the present fishing center of Ketchikan.

By a single day Chirikof's *St. Paul* had beaten Bering's *St. Peter* to America; but because the commander and the Academy's Steller were aboard the sister ship, Paul has been robbed and Peter paid the honor of discovery.

Approaching the continent, Chirikof found himself off the maze of islands which screen the Inland Passage. Wary of unknown channels, he stayed to the west of the islands. The water was deep and there was no anchorage. For two days he

sailed north. He came to an island, larger than most, spectacularly forested and deeply dented by inlets. Off one inlet the *St. Paul* hove to.

After six weeks at sea all the men clamored for a chance to be first ashore, but Chirikof, schooled under the ever-cautious Bering, decided first to land a reconnaissance party. He picked a dozen men, gave them muskets and one of the ship's two small boats. Their assignment was to land, build a fire as signal of safe arrival, look for natives and determine whether they were friendly, fill the water casks, and come back.

Their jealous comrades watched the first crew ride the gentle rollers deep into the cove. Then the landing party was out of sight behind some rocks. Aboard the *St. Paul* the watchers awaited the signal fire. They waited through the day and saw nothing; they listened anxiously through the night and heard nothing. Three days passed in the slow torture of uncertainty. On the third night they saw a glow of fire deep in the cove. The next morning Chirikof risked another landing party.

Every eye was on the second boat as it rounded the rocks into the harbor. The minutes were long until a plume of smoke rose from behind the barrier. The relieved Russians hugged each other and crowded the rail awaiting their shipmates' return. They never came back. No shots, no sound. Just the mystery of silence.

Only the superstitious could think of explanations. How could two parties of Europeans, both armed and the second very much alert, disappear without a sound? For another week Chirikof kept the *St. Paul* tacking across the mouth of the cove. Once those aboard thought they saw a fire. But no shots answered their signal guns, no booted Russians appeared on the beaches.

One morning the lookout shouted with joy. Two boats were moving out of the cove. But soon the canoes were near enough for the Russians to see they were being paddled, not rowed. The canoes approached the *St. Paul* and the painted natives

made gestures which the Russians could not interpret. Then the Indians paddled back to the shore, into waters where the *St. Paul* could not follow. With both small boats lost, Chirikof had no way of sending ashore landing parties to investigate. Nor had he any means of getting fresh water.

After ten days the survivors sadly gave up and sailed away, leaving behind fifteen men and a mystery yet unsolved. The only clue to the fate of the landing parties is a Tlingit Indian legend which tells of a warrior on the island of Sitka who dressed himself in an animal skin and led a party of white hunters into ambush. It might have worked once. But twice?

The *St. Paul* coasted north. Then, with scurvy setting in among the crew and water running short, Chirikof swung back toward home. At almost the same time, Bering was starting west. For days the sister ships sailed on converging lines and once they were less than a hundred miles apart. But the *St. Paul*, farther from land, missed the quick-change tricks of Aleutian weather; nor was she so often in danger of shoals. Gradually she pulled away and although nearly a third of her crew perished, her return trip was a picnic compared to the *St. Peter's*.

On September ninth, while Bering was just entering the fight with the storm which drove him back hundreds of miles, Chirikof was worrying about fog. He could hear breakers. The *St. Paul* was anchored; when the fog lifted she was found to be lying off a mountainous island. Chirikof saw men on the beach. As he watched, a flotilla of seven skin canoes, each holding a lone man, raced out from shore. They approached the ship but, although Chirikof took the precaution of making most of his men stay out of sight, would not come aboard. He tossed them presents and finding they were enamored of knives, made signs that he would give knives if they would bring water. The Aleuts signalled agreement.

"We gave them a small barrel in which to bring us water from the shore," he wrote in his journal. "They understood what we meant, but they would not take the barrel and showed

us that they had bladders for that purpose. Three of them paddled toward the beach and returned with water. When they came alongside one of them held up a bladder and indicated that he wished a knife in payment. This was given him, but instead of handing over the bladder, he passed it to the second man, who also demanded a knife. When he got it he passed the bladder to the third man, who equally insisted on a knife. This act, as well as some other things they did, proves that their conscience is not highly developed."

A sudden williwaw, rolling down the side of Little Tanaga Mountain, almost wrecked the *St. Paul* and ended the trading.

Eleven weeks after starting back, and with all but one of his officers dead, Chirikof brought his battered craft back into its home harbor at Avatcha Bay. There he spent the winter, regaining strength and awaiting word of Bering. His was the first news to start back to St. Petersburg that America had been reached from the west.

But after the death of Peter the Great, the thoughts of the throne had centered on Europe. The empire-builders looked the other way. Not so the fur-seeking Siberians.

Invasion

The fur merchants of Okhotsk bid high for the clothes of the toothless survivors back from the Bering expedition. A year later word came from Moscow and the Chinese trading stations that even the poorest pelts had been resold for as much as two hundred dollars each. Business circles buzzed.

A Cossack named Emili Bassov was the first to cash in. He remembered that the naturalist, Steller, had said there were plenty more where those furs came from. Bassov collected a crew and built a small sail-and-oar *shitika* which somehow reached Bering Island. The crew spent the winter clubbing seal and shooting otter, then returned, gunnels awash, with a cargo worth a hundred thousand rubles.

Everyone in Siberia started building shitikas.

Most hunters thought of the Commander Islands. But one fur merchant, with the improbable name of Alphanassie Tsebaefskoi, recalled the stories of the long chain of islands farther east. He hired a promyshleniki, Michael Nevodchikof, who had sailed under Bering. In the ship *Yevdoika*, Nevodchikof sailed east. This polysyllabic combination found Attu.

Attu, unlike Bering Island, was inhabited. As the *Yevdoika* moved slowly into the harbor, a fleet of one- and two-man bidarkas sped out from shore. The Russians grabbed muskets and raised screens of hide around the gunnels as protection against arrows and spears. But the Aleuts were friendly.

They waved and shouted and circled the ship at a safe distance, obviously amazed at its size. A few came alongside, but none would climb aboard. Finally convinced of the natives' good intentions, some of the Russians lowered a small boat and rowed ashore. There was trading—knives for fur, cloth for fur, rings for fur. And then, somehow, a scuffle started. An angry trader raised his musket. A spark in the pan, an echoing roar, a lingering puff of smoke: civilization had come to the Aleutians.

The natives raced for the shelter of their dug-in huts. The Russians splashed back into their boat. A bleeding Aleut lay on the beach.

That was 1745.

Fourteen years later the fur explorer Stefen Glottoff reached the big islands of Umnak and Unalaska at the eastern end of the Chain. From one end of the Aleutians to the other the natives had learned what guns were and what they could do. No longer did the Aleuts paddle out to meet the ships which stood in from the west; at sight of a sail the natives took to the mountains.

Each year the ships were bigger, each year they brought more men. Sometimes the Russians hunted, killing ferociously and leaving the seal and otter herds decimated. Sometimes they traded. Usually they stole. The following is a Russian account

of a skirmish between the promyshleniki and the islanders at Kanaga:

"The Russians under the protection of their ship opened fire from their guns and turned the Aleut to flight. At the battle site there remained two skin-boats with two seriously wounded Aleut in them, and in one of the skin-boats was also found an Aleut boy. He was taken to Kamchatka, baptized and later became a cossack under the name of Ivan Cherepanov. Three days after the skirmish, the father of the boy accompanied by relatives came to propose a ransom for the boy. The Aleut refused to land, fearing vengeance. But by some ruse the elder Aleut and another man were lured to the Russian ship. There they were put on the deck and, with their arms and legs stretched out by thongs, subjected to tortures; scalding-hot tar was poured on their bodies. After that the elder was beheaded. Some time later Bashmakov sent to the village his laborers, who committed an awful butchery and then plundered and burned the village."

Sometimes the Aleuts resisted more successfully. The men of Unalaska were brave. They had more than the courage it takes to travel hundreds of miles through rough water in skin-covered boats; they had the bravery to fight. They had battled the Aleuts of Atka, the Indians of the Peninsula, and the Eskimos of the mainland. Sometimes they had fought each other for there were twenty-four villages on Unalaska and more on neighboring Umnak and Unimak, and where people are crowded, quarrels arise.

When the white strangers came from out of the setting sun and spoke of the *yassack*, the tribute in furs which all must pay, the Aleuts of Unalaska fought. The Russians defeated them and seized their furs, but the next year, 1762, when five more ships came, the natives were ready. Of the five only one—the *Andreas and Natalie*—returned to Siberia.

By every trick of aboriginal war, the Aleuts decoyed the Russians back into the hills, into the tall grass of the ravines—into ambush. In a series of surprisingly well co-ordinated

attacks they virtually wiped out the Russians ashore and destroyed three of the four ships at the island at that time. Later they burned a fourth, off Umnak, and only the unexpected appearance of the *Andreas and Natalie*, returning from the discovery and attack of the island of Kodiak, prevented the Aleuts from achieving total victory by their blitz.

Failing to wipe out their enemy in the first blow, the Aleuts lost everything. The promyshleniki, veterans of native war, struck back more savagely than the savages. They destroyed the villages one at a time, defeated all attempted counterblows, and at last herded the survivors onto a plain where they surrendered to the Siberian commander, Feodor Solovief.

Solovief was a sadist with a scientific turn of mind and a dictator's instinctive knowledge of the social significance of terror. He enjoyed teaching the natives a lesson and he wanted to learn something from the experience: he wanted to learn how many men a single shot could penetrate. Tying the Aleuts into bundles, he fired into them. When he found that a bullet went through only two men, he tied pairs back to back and shot them through the stomach. Along with the killing there was incidental rape and torture. Three thousand died. Eighteen of the villages on Unalaska were wiped out, every village on southern Umnak, every village on the islands of the Four Mountains, most of the villages on Unimak.

The Aleuts who survived the slaughter were convinced. Never again did they rebel. And when the Russian priests arrived, years later, the natives joined the Church. "Any religion which can save the Russians," they said, "must be very strong."

One Cook Too Many

In 1769 the planet Venus crossed in front of the sun. Nine years later the shadow of that eclipse lay long on the Russian fur trade in the North Pacific and led to the settlement of Alaska.

The Royal Society of London had pondered earnestly on the coming eclipse and, convinced of its importance to astronomy and navigation, talked George the Third into sending an expedition to the Pacific, where the phenomenon could best be observed. For the task, the Admiralty chose the bark *Endeavour*; for command, Captain James Cook.

James Cook was a man of parts: seaman, surveyor, map-maker, astronomer. At the age of thirty he had been in command of a British man-of-war. During the Seven Years' War he charted the channel of the St. Lawrence River while under French fire; his measurements were so accurate, no important changes were ever made in them. And at forty-two he began a series of voyages which remade the maps of the world. After claiming an empire for the king in two trips to the Southwest Pacific, he decided to go in search of the elusive Northwest Passage. His goal was usual, but his approach unusual: he intended to sail east from Pacific to Atlantic.

So in the spring of '78 His Majesty's Ships *Resolution* and *Discovery*, under James Cook, Post-Captain of the Royal Navy, fellow of the Royal Society, worked north along the American coast. By early spring they were skirting the Russian fur islands. With bland disregard for his promyshleniki precursors, Cook bestowed English names on every landmark.

Awed by the smoking snow mountains, impressed by the otter pelts, irritated by repeated evidence of earlier Russian visits, amazed by the wonderful fishing, Cook followed the Peninsula westward. Shortly before reaching Unimak, the first of the Aleutians, the *Resolution* was briefly becalmed. "Having three hours," Cook wrote, "our people caught upward of a hundred halibuts, some of which weighed a hundred pounds."

The calm was the proverbial one. The storm which followed turned out to be a driving fog, lasting for days. "We were now alarmed at hearing the sound of breakers on our larboard bow. On heaving the lead, we found twenty-eight fathoms of water. I immediately brought the ship to, and anchored. . . . The fog having cleared a little, it appeared that

we had escaped very imminent danger. We found ourselves three-quarters of a mile from the northeast side of an island. Two elevated rocks were about half a league from us, and about the same distance from each other. There were several breakers about them, and yet providence had, in the dark, conducted the ships through between these rocks, which I should not have ventured in a clear day."

As lucky as Fleet-Commander Bering was unlucky, Post-Captain Cook had blindly shot one of the most dangerous passes in the Aleutians. He sailed north, making charts of the coast that have since needed no corrections. In August he passed through Bering Strait, with Siberia in sight to port. Turning east, he sailed along the northern shore of America. He was on the right track, but not until 1906 was anyone to make the full passage. Cook turned back at Icy Cape when the ice pack threatened to lock him in. After sliding along the eastern edge of Asia for several days, Cook cut across the Bering and early in October reached Unalaska, where he stayed for three weeks, the first Englishman in the Aleutians.

Although fresh from the South Sea Islands, Cook wrote of Unalaska with a chamber of commerce fervor. Perhaps the Chain reminded him of his native Yorkshire:

"There were great quantities of berries found ashore. . . . We also got plenty of fish; at first mostly salmon, but both fresh and dried, which the natives brought us. Some of the fresh salmon was in high perfection; we caught a good many salmon trout, and once a halibut that weighed two hundred and fifty-four pounds. . . . A boat was sent out every morning, and seldom returned without eight or ten halibut, which were more than sufficient to serve all our people.

"As our excursions and observations were confined wholly to the sea-coast it is not to be expected that we could know much of the animals or vegetables of the country. There are no deer upon Oonalashka, or upon any of the other islands. Nor have they any domestic animals, not even dogs. Foxes and weasels were the only quadrupeds we saw.

"There is a great variety of plants at Oonalashka, and most of them were in flower the latter part of June. The principal one is the saranne, or lily root, which is about the size of a root of garlick; the taste is not disagreeable, and we found means to make some good dishes with it. We must reckon among the food of the natives some other wild roots and berries (including) a brown berry unknown to us. This has somewhat the taste of a sloe, but it is unlike it in every other respect. It is very astringent if eaten in any quantity. Brandy might be distilled from it.

"On the low ground, and in the valleys, is plenty of grass, which grows very thick, and to a great length. I am of the opinion that cattle might subsist at Oonalashka all the year round, without being housed."

But if Cook thought of the Aleutians as a potential grazing ground for English cattle, he soon received an unpleasant surprise. A native named Derramoushka brought him "a rye loaf, or rather a pie made in the form of a loaf, for it enclosed some salmon highly seasoned with pepper." Along with the loaf was a note in a character Cook could not read. Russians must already be living on the island.

To investigate, the captain sent "Corporal Ledyard, of the Marines, an intelligent man."

The First American

John Ledyard, twenty-seven, deserter from Dartmouth College and the British Army, was indeed an intelligent man. He was also the first American to see the Aleutians.

Eight years earlier he had slipped away from school in a canoe, shipped out, joined the British Army at Gibraltar, left the Rock on a mule boat bound for the Barbary Coast, studied briefly for the ministry in New England, sailed before the mast to England, and, finding himself in London with sixpence to his name, talked his way into a berth on the *Resolution*.

Now, tramping through the tall grass of Unalaska behind the

native guide, he was starting on a trail which was to lead to even stranger adventures. The promyshleniki he met in the Aleutians so aroused Ledyard's interest that a decade later he walked across a continent, from St. Petersburg to eastern Siberia. En route he wrote letters to his old friend Tom Jefferson, advancing the theory that America had been populated from Asia and that the Indians were related to the Chinese and to the Siberian Tatars. Arrested in Irkutsk as a French spy, he was deported to Poland; he went to England, found backers and died in Egypt trying to organize the exploration of Africa.

But that was in the future. As he went with the Aleut to meet the Russians, he thought mainly of Cook's instruction to "make them understand that we are English, the friends and allies of their nation."

"I went entirely unarmed," Ledyard wrote in his journal. "The first day we proceeded about fifteen miles into the interior part of the island without any remarkable occurrence, until we approached a village just before night. This village consisted of about thirty huts, some of them large and spacious, though not very high. The huts are composed of a kind of slight frame, erected over a square hole sunk about four feet into the ground; the frame is covered at the bottom with turf, and upwards it is thatched with coarse grass; the whole village was out to see us, and men, women, and children crowded about me. I was conducted by the young chief, who was my guide, and seemed proud and assiduous to serve me, into one of the largest huts.

"I was surprised at the behaviour of the Indians, for though they were curious to see me, yet they did not express that extraordinary curiosity that would be expected had they never seen an European before, and I was glad to perceive it, as it was an evidence in favor of what I wished to find true, namely, that there were Europeans now among them.

"The women of the house, which were almost the only ones I had seen at this island, were much more tolerable than I

expected to find them; one, in particular, seemed very busy to please me; to her, therefore, I made several presents, with which she was extremely well pleased. As it was now dark, my young chief intimated to me that we must tarry where we were that night, and proceed further the next day; to which I very readily consented, being much fatigued. Our entertainment the subsequent part of the evening did not consist of delicacies or much variety; they had dried fish and I had bread and spirits, of which we all participated. Ceremony was not invited to the feast, and nature presided over the entertainment.

"At daylight Perpheela (which was the name of the young chief that was my guide) let me know that he was ready to go on; upon which I flung off the skins I had slept in, put on my shoes and outside vest, and arose to accompany him, repeating my presents to my friendly hosts. We had hitherto travelled in a northerly direction, but now went to the westward and southward. I was now so much relieved from the apprehension of any insult or injury from the Indians that my journey would have been even agreeable had I not been taken lame, with a swelling in the feet, which rendered it extremely painful to walk; the country was also rough and hilly, and the weather wet and cold.

"About three hours before dark we came to a large bay, which appeared to be four leagues over. Here my guide, Perpheela, took a canoe and all our baggage, and set off, seemingly to cross the bay. He appeared to leave me in an abrupt manner, and told me to follow the two attendants. This gave me some uneasiness. I now followed Perpheela's two attendants, keeping the bay in view, but we had not gone above six miles before we saw a canoe approaching us from the opposite side of the bay, in which were two Indians; as soon as my guides saw the canoe, we ran to the shore from the hills and hailed them, and finding they did not hear us, we got some bushes and waved them in the air, which they saw, and stood directly for us. This canoe was sent by Perpheela to bring me across the bay, and shorten the distance of the journey.

"It was beginning to be dark when the canoe came to us. It was a skin canoe, after the Eskimo plan, with two holes to accommodate two sitters. The Indians that came in the canoe talked a little with my two guides, and then came to me and desired that I get into the canoe. This I did not very readily agree to, however, as there was no other place for me but to be thrust into the space between the holes, extended at length upon my back, and wholly excluded from seeing the way I went, or the power of extricating myself upon any emergency.

"But as there was no alternative, I submitted thus to be stowed away in bulk, and went head foremost very swift through the water about an hour, when I felt the canoe strike a beach, and then afterwards it was lifted up and carried some distance, and set down again; after which I was drawn out by the shoulders by three or four men, for it was now so dark that I could not tell who they were, though I was conscious I heard a language that was new.

"I was conducted by two of these persons, who appeared to be strangers, about forty rods, when I saw lights, and a number of huts like those I left in the morning. As we approached one of them, a door opened, and I discovered a lamp, by which, to my joy and surprise, I discovered that the two men who held me by each arm were Europeans, fair and comely, and concluded from their appearance they were Russians, which I soon after found to be true.

"As we entered the hut, which was particularly long, I saw, arranged on each side, on a platform of plank, a number of Indians, who all bowed to me; and as I advanced to the further end of the hut, there were other Russians. When I reached the end of the room, I was seated on a bench covered with fur skins, and as I was much fatigued, wet and cold, I had a change of garments brought me, consisting of a blue silk shirt and drawers, a fur cap, boots, and gown, all which I put on with the same cheerfulness they were presented with. Hospitality is a virtue peculiar to man, and the obligation is as great to receive as to confer.

"As soon as I was rendered warm and comfortable, a table was set before me with a lamp upon it; all the Russians in the house sat down round me, and the bottles of spirits, tobacco, snuff, and whatever Perpheela had, were brought and set upon it; these I presented to the company, intimating that they were presents from the Commodore Cook, who was an Englishman. One of the company then gave me to understand that all the white people I saw there were subjects of the Empress Catherine of Russia, and rose and kissed my hand, the rest uncovering their heads. I then informed them as well as I could that Commodore Cook wanted to see some of them, and had sent me there to conduct them to our ships.

"These preliminaries over, we had supper, which consisted of boiled whale, halibut fried in oil, and broiled salmon. The latter I ate, and they gave me rye-bread, but would eat none of it themselves. They were very fond of the rum, which they drank without any mixture or measure. I had a very comfortable bed, composed of different fur skins, both under and over me, and being harassed the preceding day, I went soon to rest.

"After I had lain down, the Russians assembled the Indians in a very silent manner, and said prayers after the manner of the Greek church, which is much like the Roman. I could not but observe with what particular satisfaction the Indians performed their devoirs to God, through the medium of their little crucifixes, and with what pleasure they went through the multitude of ceremonies attendant on that sort of worship. I think it a religion the best calculated in the world to gain proselytes, when the people are either unwilling or unable to speculate, or when they cannot be made acquainted with the history and principles of Christianity without a formal education.

"I had a very comfortable night's rest, and did not wake the next morning until late. As soon as I was up, I was conducted to a hut a little distance from the one I had slept in, where I saw a number of platforms raised about three feet from the ground, and covered with dry coarse grass and some green

bushes. There were several of the Russians already here, besides those that conducted me, and several Indians who were heating water in a large copper caldron over a furnace, the heat of which and the steam which evaporated from the hot water, rendered the hut extremely hot and suffocating.

"I soon understood this was a hot bath, of which I was asked to make use in a friendly manner. The apparatus being a little curious, I consented to it, but before I had finished undressing myself, I was overcome by the sudden change of the air, fainted away, and fell back on the platform I was sitting on. I was, however, soon relieved by having cold and lukewarm water administered to my face and different parts of my body. I finished undressing, and proceeded as I saw the rest do, who were now all undressed.

"The Indians, who served us, brought us as we set or extended ourselves on the platforms water of different temperatures, from that which was as hot as we could bear to quite cold. The hot water was accompanied with some hard soap and a flesh-brush; it was not however thrown on the body from the dish, but sprinkled on with the green bushes. After this, the water made use of was less warm and by several gradations became at last quite cold, which concluded the ceremony.

"We again dressed and returned to our lodgings, where our breakfast was smoking on the table; but the flavor of our feast, as well as its appearance, had nearly produced a relapse in my spirits, and no doubt would, if I had not had recourse to some of the brandy I had brought, which happily saved me. I was a good deal uneasy, lest the cause of my discomposure should disoblige my friends, who meant to treat me in the best manner they could. I therefore attributed my illness to the bath, which might possibly have partly occasioned it, for I am not very subject to fainting. I could eat none of the breakfast, however, though far from wanting an appetite. It was mostly of whale, sea-horse, and bear, which, though smoked, dried and boiled, produced a composition of smells very offensive at nine or ten in the morning. I therefore desired I might have a piece of

smoked salmon broiled dry, which I ate with some of my own biscuit."

Ledyard was accompanied by a trio of Russians back to the *Resolution*. For the next two weeks the English and Russians staged progressive house parties, each group delighted to have someone new to talk to, if only in sign language. Visiting the Russians at the Aleut settlement of Samganoodha one day, Captain Cook uneasily noticed a large flotilla of war kayaks streaming into the bay. He signalled his men to stand by for possible trouble.

The kayaks landed half a mile up the beach. Immediately the Aleuts helped a long-bearded white man ashore and set up a tent for him before arranging their own shelters under their overturned kayaks. The new arrival was, according to Cook, "the principal person amongst his countrymen in this and the neighboring islands. His name was Erasim Gregorioff Sin Ismyloff. . . .

"He appeared to be a sensible, intelligent man, and I felt no small mortification in not being able to converse with him unless by signs, assisted by figures and other characters, which, however, were a very great help. I desired to see him on board the next day, and accordingly he came with all his attendants. I found that he was very well acquainted with the geography of these parts, and with all the discoveries that had been made in them by the Russians. On seeing the modern maps, he at once pointed out their errors.

"From what we could gather from Ismyloff and his countrymen, the Russians have made several attempts to get a footing upon that part of the continent that lies contiguous to Oonalashka and the adjoining islands, but have always been repulsed by the natives, whom they describe as a very treacherous people. They mentioned two or three captains or chief men who had been murdered by them, and some of the Russians showed us wounds which they said they had received there. Mr. Ismyloff seemed to have abilities that might entitle him to a higher station in life than that in which we found him."

Mr. Ismyloff was not only a man of ability, but a man of foresight. He saw that the Englishmen had a collection of otter pelts and he guessed what would happen when they discovered the value of the sleek skins. No longer would the Aleutians be a private promyshleniki preserve. As soon as the *Resolution* was hull down toward Hawaii, carrying Cook to his death in a skirmish with the natives, Ismyloff wrote a warning to his countrymen. Competition was coming.

It arrived almost sooner than Ismyloff expected. The *Resolution*, detouring north on its homeward journey, visited Kamchatka. Under the uneasy eyes of the Siberian hunters, the British seamen sold the Okhotsk merchants some otter pelts. But it was not until the ship reached Canton that trade really became brisk.

"One of our seamen," reports Cook's successor in command, "sold his stock alone for eight hundred dollars; and a few prime skins, which were clean and had been well preserved, were sold for one hundred and twenty each. The whole amount of the value that was got for the furs, I am confident, did not fall short of two thousand pounds sterling: and it was generally supposed that at least two-thirds of the quantity we had originally got from the Americans were spoiled and worn out, or had been given away or otherwise disposed of in Kamchatka. The rage with which our seamen were possessed to return and buy another cargo of skins to make their fortunes at one time was not far short of mutiny."

But the officers ordered the *Resolution* to continue south and west, back to London. The Russians, and Gregor Ivanovich Shelikof, had time to dig in for the fight for fur they knew was coming.

A Gentleman and a Liar

Gregor Ivanovich Shelikof was a gentleman, a liar, and the first man to think of colonizing Alaska.

Like many Siberians, he came from the Ukraine; but unlike most, he departed from his homeland voluntarily. After a few years as a minor official, he went into the fur business, acquired several small ships, married—his second wife—the daughter of a leading furrier in the fur center of Irkutsk, became his father-in-law's partner, and entered the otter trade. His success was spectacular.

Handsome, tough, smart, and unscrupulous, Shelikof had only one fault as a businessman: he talked too much. Among all the canny cutthroats of the steppes, he was the first to see what the fierce competition for fur was doing to the animals: they were dying out. Regulation was necessary. But Shelikof could not refrain from telling his competitors what he proposed to do. He, Gregor Ivanovich, intended to set up a fur empire of the far north, greater than the Hudson's Bay Company, greater than the East India Company.

And because he was powerful, his rivals feared he might do it; they combined against him, and though they could not ruin him, or even prevent his growing richer, they kept him from dominating Siberia. Shelikof's plans for a monopoly melted under the hot competition.

Then came word of the new competitor. Cook had penetrated the Aleutians and his English seamen were selling pelts in China—in Canton, where Russian merchants were banned by treaty from doing business. That the English would be back no one doubted. The only solution, said the merchants, was for Russia to plant permanent colonies in the Aleutians and America, then claim formal possession. Thus they could deny the British the use of the ports.

In distant St. Petersburg, Catherine the Great took a dim view of the foggy islands. She believed in the new economic doctrine of *laissez faire*, but she believed in it all the way; if merchants wanted to go overseas to get rich, let them look out for themselves. She would subsidize no colonies.

But another woman had the last word. Shelikof's wife, Natalya, talked her man into a daring move. An intelligent,

intensely ambitious woman, unbound by the shackling taboos of the *terem*, which limited the activities of her Siberian sisters, Natalya is said to have asked, "If Catherine won't colonize the islands, Gregor Ivanovich, why don't we? If we plant a settlement in America, how then could even an empress deny us a monopoly on Alaskan fur?"

Whether nagged into it or not, Shelikof did just that. While the other merchants mournfully mulled over the disaster of living in the same world with the British, Shelikof built three new ships, recruited one hundred and ninety men—mostly promyshleniki toughs, and made ready to establish a settlement, thereby cinching Russia's claims to the fur coast. When the galiot *Three Saints* put to sea from Okhotsk in the summer of 1783, accompanied by the *Saint Michael* and the *God's Friend Simeon*, the bold Natalya was aboard.

A year later, after stops at Kamchatka and Unalaska and a wild voyage in which the *Saint Michael* simply disappeared, the *Three Saints* slid into a quiet cove on Kodiak Island. Shelikof named it "Three Saints Bay" in honor of his flagship. There Natalya went ashore, the first white woman in northwest America.

The Kodiak Eskimos had had other and unpleasant Russian visitors off and on for ten years. They were not pleased to see Natalya and her companions. They traded a little, but for the most part remained aloof. Nothing would tempt them to help the invaders build their log cabins and storehouses. (Kodiak, east of the Aleutians, is forested.) Then, one day, Shelikof heard a rumor that the natives planned an attack.

It posed a delicate problem. The Russians were strong enough to wipe out the entire island population, but Shelikof knew he would need the natives alive to hunt otter. Unlike the promyshleniki, who urged an exemplary massacre, he wanted no bloodshed: it would be bad for business. But he had to act quickly. He ordered an ambush, a very unusual ambush.

That night the Siberians crept from their camp and moved quietly into the berryfields, where they lay in shamefaced

waiting. The next morning, when the time was right, they sprang from cover. It was not the braves they surprised; their victims were the women who had come to fill tight-woven grass baskets with berries. The women were held as hostages. Shelikof gave the men an opportunity to ransom their wives in exchange for daughters or young sons. A girl could go home for an evening or two and later the father drop around to pick up any offspring. But permanent quarters were set up for the captives. The Kodiaks behaved.

Within three years Shelikof had the colony organized. Houses were built, the cattle he had brought from Siberia were multiplying in spite of the attacks by the huge Kodiak bears and, most important, the hunters were bringing in furs. A secondary outpost had been established at Cook's Inlet, where the Englishman had found pelts plentiful. When the *Saint Michael*, two years overdue, limped into Three Saints Bay, Shelikof felt his embryo empire secure. He could wait no longer to get home and boast of his achievements—towns founded, rebellions suppressed, otters skinned.

Shelikof's luck held. He returned to find his father-in-law established in high favor at St. Petersburg. And hardly had he begun belaboring his competitors with tales of his overseas exploits than he received a summons to the imperial court. Catherine herself wanted to hear the story of this strange new land which produced the pelts she found so suited to her Teutonic beauty. Then it was that Shelikof's penchant for patter got him into trouble. Again he talked too much.

He told a committee from the Imperial College of Commerce that he had discovered Kodiak; their official records showed it had been found a decade before by Stefen Glottoff, discoverer of Unalaska. He claimed to have converted every Aleut on the island to the Orthodox faith; but he had taken no priest on the expedition. His version of the battle of the berryfields omitted all mention of kidnapping women and dwelt at length upon a pitched battle that Shelikof claimed to have saved by a stratagem—capitalizing on the Kodiaks' terror of an eclipse.

Someone remembered that Columbus had told a similar tale in 1504; and besides, there had been no eclipse.

For what he had done, Catherine gave Shelikof a patent of nobility and a medal. But because of what he claimed to have done but had not, the College of Commerce rejected his plea for a fur monopoly. He pulled every string, even underwriting with a great dowry the romance of his ugly daughter with a dashing young favorite of Catherine's court, but he had overplayed his hand. Back in Siberia his rivals, having heard of his active attempt to squeeze them out, again were uniting against him. Reports from his overseas outposts were disheartening; his business empire was threatened with collapse.

Shelikof, medalled but morose, raced back to Siberia by sled.

Alaska's Great Alexander

History turns on little things. If a middle-aged merchant in the backwoods of Siberia had not traded guns for sable furs in the summer of 1789, the story of Alaska would be different, perhaps very different.

The trader was a slight, blond, unsuccessful frontier businessman who had taken to the deep woods on a bartering trip he hoped would save him from the bankruptcy brought on by the stupidity of his former partners. Shrewd and tough, he seldom made mistakes himself; but in the woods he made a disastrous one—he used muskets for barter. The Chukchi natives gave scores of sable skins for each weapon, to be sure, but on the trader's return trip they used his guns to rob him of every pelt.

And so, a failure, debt-ridden and desperate, Alexander Andrevich Baranof, aged forty-two, trudged into the obscure port of Okhotsk in the summer of 1790; he trudged into a place in American history.

Baranof was in great need, but he had illustrious company—the fur prince Shelikof. Business was bad. While the boss had

been away at court, Shelikof's overseas fur seekers saw little reason to work and no reason to take risks. Their ships stayed in port and the men stayed in their huts with the hostage women. As if the men's pursuit of pleasures instead of pelts were not bad enough, half a world away war had broken out between Sweden and Russia. Rumors reached Shelikof that an armed Swedish raider was sailing toward the North Pacific.

Shelikof needed a dynamic deputy who could bring life to the dying fur outposts. Baranof needed money. Although the men disliked each other intensely, their needs brought them together. For ten shares in the fur company, Baranof agreed to manage the Aleutian-Alaskan area for five years. Less than a fortnight after walking into Okhotsk, he boarded the *Three Saints*. As the ship put to sea he stood peering ahead into the fog, his back already turned on Russia.

Baranof did not see his homeland again, nor did the gallant little galiot on which he sailed. After weeks of bucking unseasonable gales, the *Three Saints* reached Unalaska and found shelter in Koshigin harbor. Baranof's rejoicing at the landfall was premature. A great storm arose. The ship broke anchor and rode onto the rocks. By desperate effort all the men, most of the livestock, and some of the provisions were saved. But they faced an Aleutian winter on an unknown shore. Everything depended on the natives.

The Aleuts were friendly. Although they had bitter memories of earlier Russian visits, they seemed unable to nurse hatred. And Baranof's men were not primarily promyshleniki, but rather peasants, picked to work with their hands and till the soil at the Kodiak colony. Though far from being saintly, their home habits had not included rape, murder, pillage. So, given fair treatment, the Aleuts co-operated. The native men saved the Russians from starvation by helping on the hunt. The women willingly saved them from continual boredom.

But Baranof could find no relief in the arms of an Aleut. He was obsessed with fur. Every day counted if he were to make his fortune during his five years in America. Late in the

fall he dispatched a flotilla of six bidarkas, manned by twelve natives and one of the Russians, to summon the *Saint Michael* from Kodiak to rescue the party. The messengers paddled off into the rising sun. They did not come back.

Half a year later Baranof's men had completed three large skin canoes, umiaks. Leaving a small party to look after the remaining provisions, Baranof and his group started to row to Kodiak four hundred stormy miles away. They followed the Aleutians to the tip of the Peninsula. There, under violent protests from the promyshleniki leaders, Baranof ordered two canoes north to scout Bristol Bay and seek a portage across the Peninsula. His own boat continued east, following the mainland.

Because the Indians on the Peninsula were still as hostile as in the days when the intelligent Mr. Ismyloff showed Captain Cook his scars, the party landed only on the offshore islands. Guards were posted about camp each night. It was a wise precaution. One morning the party was awakened by a wild shout in Russian. Four men rushed toward them—the only survivors of the thirteen who had tried to reach Kodiak by kayak the winter before. They had made the mistake of landing on the mainland and were ambushed.

In July, eleven months out of Okhotsk, seven months overdue, Baranof arrived at Kodiak. He was delirious with fever and too sick to stand.

It was a sorry beginning.

Six weeks passed before the new boss could look over the fur center. What he found did not make him feel better. The colony had struck few roots in the Alaskan soil. Russo-Aleut bastards were bountiful, but vegetables were not. The island had not been surveyed, nor the surrounding waters fully explored. Already sea otters were scarce, but the big and belligerent Kodiak bears plentiful.

Worst of all, the second Shelikof outpost, Fort Alexander, was in serious trouble. Agents from a rival company had established a post nearby and by rapine and robbery were

ruining the good relations which had prevailed between Russian and Indian on Cook's Inlet.

The Kodiak promyshleniki looked to their new chief to lead them in a war against the pelt pirates. But Baranof was a businessman, not a blood-and-guts warrior. He refused to be driven to direct action. He doubted his authority to wage war on other traders.

Alaska and the Aleutians were then, as they later became under American rule, literally without law. Catherine had refused to claim the lands, so in theory there was no Russian government. In practice the area was remotely controlled by the military commander of the District of Okhotsk; traders operating out of that port were responsible to him. Baranof had talked to the commander, a German *émigré* named Johan Koch, before embarking. Koch had told him to report any abuse he noticed outside his territory; but between observing excesses and captaining a civil war there was a great gap. So Baranof stalled. And stalling, he lost respect—the respect of his men, the respect of his enemies. All thought him afraid.

Baranof based his hopes on a successful summer otter drive. He had been sent to get furs, come hell or high water, and he intended to get them. With a small war under way on the inlet, where his rivals now demanded he abandon Fort Alexander, he issued an April call for the Aleuts to gather for a great otter expedition. But as the natives prepared for the hunt, the earth shook. A tidal wave swept in from the Pacific, smashed the Three Saints settlement flat, and destroyed hundreds of bidarkas. All seemed lost.

Then, for the first time, Baranof's genius for hard work showed. He refused to compromise with fate. He ordered the town rebuilt on a better site across the island; he declared the hunt would be held on schedule. In labor lay the only salvation, and Baranof saw to it that everyone worked. He worked hardest himself, drawing plans for the new settlement, helping to haul supplies, organizing the hunt. And when the day came for the men to put to sea, Baranof himself donned the wooden

rain hat and waterproof sealgut parka of the Aleut and climbed into a hunting bidarka.

From the point of pelts, it was not a good hunt. Otters were scarce in the waters they cruised. Some of the Aleuts were ambushed by unfriendly Indians. The usurpers at Cook's Inlet refused to make peace and they publicly insulted Baranof. But in other ways the expedition paid unexpected dividends. Baranof learned the technique of the otter drive and thought of improvements in method. He made peace with the nearest mainland Indians and sealed the bargain by marrying the chief's daughter—although he already had a wife at home. The skipper of a wayward British merchantman, the *Phoenix*, told him of untouched otter rookeries to the south, of the new British colonies in western America, and of Hawaii, where a brisk trading business had begun, although the Sandwich Islanders would allow no permanent white settlement. And when he returned to Kodiak, Baranof found a new Shelikof ship, the *Eagle*, British built, in port with fresh supplies and news from home.

The ship also brought some wildly impractical Shelikof directives. The mind which had conceived the story of outwitting the Kodiaks with an eclipse had now fabricated mighty plans for Russian America. There was a scheme to set up an Academy of Science at Kodiak—where less than a dozen men could read or write. There was a project for converting the entire coast to Russian Orthodoxy and a promise of priests to be sent. And there was an order to build a ship in the Kodiak wilderness.

Baranof built that ship, although he had to shanghai the British skipper of the *Eagle* to show him how. Short of iron, missing many of the supplies Shelikof claimed to have sent, the little blond boss rushed the project through. In less than a year he watched his own *Phoenix* slide down the improvised ways, the first ship launched in western America. And that year's otter take was terrific—twice as large as any on record. Baranof was coming through.

But an ocean and a continent away, in the court of Catherine the Great, things were happening over which he had no control.

The Romantic Son-in-Law

In a court famous for the handsome men a lush empress had gathered about her, Nikolai Petrovich Rezanof stood out for superb good looks. Tall, handsome, immaculate in the red-and-white uniform of the Imperial Guard, Captain Rezanof stirred the blood of many a high-born woman. So when he married the ugly daughter of a merchant, court gossips said the dowry must have been magnificent.

The gossips were correct. The maiden Rezanof wed, for a price, was the daughter of ambitious old Gregor Shelikof. From the first the fur prince had favored the romance. He hoped a noble son-in-law would get him support in his drive for a North Pacific trade monopoly. Although the Apollo-like guardsman was long in rising to the bait, he finally snapped it; but he was not taken in by Shelikof. The scion of a Siberian family, Rezanof knew well the future of fur. He had his eye on the main chance, and he knew Shelikof would not live forever.

Not even approaching immortality, Shelikof died conveniently in 1795. He left his business to his astute wife, Natalya, and to his influential son-in-law, Nikolai. His death was opportune, for a year later Catherine died, bringing to the throne her insane son, Paul. And the mad tsar hated business. Across a continent merchants trembled for their future; nowhere did they shake as uncertainly as in the Siberian fur centers, for most of all Paul hated overseas trade. It was un-Russian.

Then it was that Rezanof made good as a son-in-law. He knew how to talk to the muddled monarch. First he talked him out of persecuting the Shelikof interests. Next he talked him into granting the long-desired monopoly, a favor not even Catherine had conceded. All other Siberian fur outfits were

ordered to join the Shelikof interests in a great Russian-America fur company which, although dominated by Rezanof and his mother-in-law, would have royal sponsorship. Headquarters of the expanded company would shift from Siberia to St. Petersburg.

And, the ultimate miracle, the charming captain steered the scatterbrained tsar into an overdue diplomatic move. Paul proclaimed the lands of the North Pacific to be Russian territory. The fur monopoly could claim the protection of the imperial fleet.

After an assassin abbreviated Paul's reign, Rezanof wrangled another favor from his successor, Catherine's grandson Alexander, who, truly, was "not the man his grandmother was." Rezanof was named "Privy Councilor, Grand Chamberlain, Ambassador to the Court of Japan, Plenipotentiary of the Russian-America Company, Imperial Inspector of the Extreme Eastern and Northwestern American dominions of His Imperial Majesty, Alexander the First, Emperor of all the Russias."

The morsel to savor in that mouthful was "Ambassador to the Court of Japan." For it was spiced with Rezanof's burning ambition. Already discontented with the profits from the fur monopoly, he now dreamed of a trade empire whose bases would enmesh the Pacific.

He was not the first to yearn for Nippon's trade. The Cossack discoverer of Kamchatka had saved a shipwrecked Japanese and sent him as a present to Peter the Great, in whose court the little man caused considerable stir. Bering had said, "It would be profitable to open trade with these people." A Siberian called Sponberg claimed to have reached Honshu while on a voyage of discovery down the Kurile Chain. And one Mauritius Augustus Count de Benyowsky, a misplaced Magyar, visited there in a stolen ship. Under Catherine several stray sons of heaven had been saved from the sea; they were sent home on a Russian naval craft; the ship's commander was thanked but warned that Japan did not like to receive

visitors. However, one Russian ship a year would be permitted to call at Nagasaki.

This chill reception iced the warm hopes the promyshleniki had for trade. They knew they did not have enough men or enough ships to cross the water and force the Japanese to do business. So they forgot about it.

But the romantic Rezanof, a contact man de luxe, had sublime confidence in his salesmanship. His ambassadorial status, he felt, would get him an audience with the emperor. And how could a mere mikado resist the personality which had melted two tsars, to say nothing of a tsarina? With suitable ceremony, the aspiring empire-builder sailed from St. Petersburg. In due time he reached Nagasaki, where he received a royal run-around.

After a year of cooling his silk-clad heels and practicing his halting Japanese, Rezanof was informed that the emperor could not receive him. The reason was Oriental: it would not be fitting to receive the ambassador of a country to which Japan had sent no ambassador, and since no Japanese was allowed to leave the homeland for any reason, even diplomatic . . . well, the honorable ambassador could see the delay would be prolonged.

Ambassador Rezanof saw. Smouldering over the brush-off and the collapse of his plans, he sailed without delay for Okhotsk. Awaiting him there was a surprising order.

The Russian-America Company had made money, much money; and bald, bold old Baranof had made enemies, many enemies. Baranof's foes included the rivals he had crushed, the weaklings who cracked under his driving pace, and the priests whose advice he spurned. In St. Petersburg the complaints against him mounted. Every returning vessel brought more complaints. Baranof was mistreating the natives; Baranof was a drunken, immoral profligate who brewed forbidden vodka and fornicated with a native wench; Baranof was stealing the company's money.

Probably more impressed by the complaint of financial she-

nanigans than those concerning vodka and females, the St. Petersburg directors finally acted. They sent word to Rezanof to investigate and, if necessary, remove Baranof and return him to Russia for trial. This was the order awaiting the ambassador on his return to Okhotsk. With it was more bad news: a company mission to China to open the port of Canton to Russian traders had been as fruitless as the ambassador's junket to Japan.

In foul ill-humor, his usual charm curdled, Shelikof's heir sailed for Sitka, the company's new overseas headquarters. He intended to show that grasping, good-for-nothing merchant Baranof that he could not spurn the priests, ignore directives from St. Petersburg, and cheat noblemen. But the first report Rezanof sent home said, "He is truly an extraordinary person. The directors should approach the throne and ask new honors for him, or at least protect him from more slander."

The middle-aged merchant had accomplished a near miracle in America.

The Company's outposts now stretched along the Aleutians from Attu to Unalaska, far up into the Bering Sea to the Pribilof Islands and Norton Sound, along the shallow waters of Bristol Bay in the cradling arms of the Alaska Peninsula, down the mainland to Cook's Inlet where the civil war had been put down, south to newly conquered Sitka—Sitka, on Baranof Island, big and wooded, with a perfect harbor already known to British merchantmen and Yankee clippers; Sitka, the home of fierce Indians, mysterious landing place of Chirikof's vanished explorers—here Baranof was building the capital of Russian America.

From a wooden castle on a hill he ran a raw but orderly empire. The Aleuts had been broken to business. A man who thought in terms of economics rather than bullets, Baranof reduced the natives to serfdom rather than slavery. Quietly, almost imperceptibly, he bought or stole their big umiaks so they could not escape with their families. He set the women to picking berries, digging roots, gathering seafood, and the

provender he stored inside the Russian stockades for distribution during the winter. He who would not work for the Russians went hungry. Baranof cultivated the native's taste for Russian luxuries. And he organized the hunt so effectively that only by joining with the Russians could a man get enough fur and meat. This last was not entirely intentional.

When the Aleuts first warned their masters that the sea otters were disappearing, the Russians laughed. Though they should have remembered the fate of Siberian sable, they said instead, "When the cod disappears from the Sea of Okhotsk, there will still be otter here."

But soon they saw the Aleuts were right. They never admitted that promiscuous killing was the cause of the decline, but they pressed toward untouched rookeries. To reach otter waters the Aleuts now sailed aboard Russian vessels which lowered them in their little hunting bidarkas near the scene of the chase. The trend of the hunt was south, toward the Columbia River, toward California. That is why Baranof so coveted Sitka. It lies not far above the present Alaska border. From it, Russian ships could convoy hunting parties as far south as Santa Barbara and back in a single season.

Sitka was not to be had cheaply. The first Russo-Aleut colony that Baranof planted there was wiped out, almost to a man, by tough Tlingit tribesmen, the best warriors in Alaska. Three years passed before the Russian felt strong enough to try again; but in 1804 he went back. In the nearest thing to a real military campaign waged in Alaska until 1942, Baranof landed on the island, and mounted cannon on flatboats which were dragged up the river into position below the Indian stronghold. For ten days the Russians shelled the Indians' spruce-walled fort, apparently without effect. On the tenth night the attackers heard the besieged Tlingits chanting a strange, sad song. The next morning scouts found the fort deserted—except for the bodies of a few babies, slain by their parents lest their cries imperil the secret retreat.

The Indians were ousted but not crushed; they retreated only

as far as the eastern side of the island. Such were the tales of Tlingit terrorism that Baranof's Aleut colonists refused to risk leaving the stockade. They would not work in the woods; they would not till the soil.

The ordeal of that winter was the worst the Russians underwent in America after Bering. Starving and scurvy-ridden, under constant threat of ambush, they would not have lasted until spring had not Baranof risked a ship on a round trip to Hawaii. King Kamehameha sent his compliments and, more important, pork and fruit. The brown-skinned monarch of the Sandwich Islands saved Sitka for the tsar.

Such was the situation when Rezanof arrived. Baranof's castle on the hill was still incomplete; the underfed garrison was on a war footing, too busy worrying about food and Indians to bother about otter. Supply lines north and west were shaky, and the little local gardens had yet to produce. But order was appearing in the chaos, and the visiting fireman realized that bald old Baranof, whatever his faults, was the architect of Russian America. Rezanof agreed with Washington Irving's later description, "A rough, rugged, hard-drinking old Russian, somewhat of a soldier, somewhat of a trader." But he saw more. He saw in the pinch-faced merchant a man of ambition, a worthy aide in planning the future of an ocean and a hemisphere.

Together the rich young noble and the former bankrupt poured over the maps. And, staring at those crude but clumsily correct nineteenth-century charts, they realized the strategic importance of Alaska—a century before Billy Mitchell warned that "who controls Alaska controls the Pacific." The Russian base on Unalaska lay directly athwart the shortest route from America to Asia. It outflanked Hawaii. Their base on Sitka dominated the northwest coast. From it they could push south in easy stages. And that is what the self-made merchant and the money-marrying officer planned: an invasion of California.

The Salesman's Romance

The plan was simple. The Russians would establish a base at the mouth of the Columbia River, then another in northern California. Once entrenched they would pour men into the forts in preparation for a showdown with the somnambulant Spaniards. And while preparing to wrest California from the Latins, the Slavs would, by talk or terror, take bases in the Hawaiian Islands and the Philippines. After that, Russian ships could swing the Pacific and never leave home. The biggest land power in the world would control the biggest sea area in the world.

Their idea went farther than fur. Already pelting was increasingly costly, for Alaska was getting too civilized; the hunters had to go south toward unsettled California to find animals in quantity. And someday, perhaps, even California might be as crowded as Alaska. So they thought of an economy embracing manufactured goods from Sitka and Kodiak and Unalaska, grains from California, wood and fruit from the Hawaiian Islands, sisal from the Philippines, tea from China.

It was a mighty dream.

When the lean Sitka winter was over, Rezanof and a few companions sailed south in the brig *Juno* to pick a site for the Columbia River settlement. They reckoned without the fearsome bar of the River of the West. After two almost disastrous attempts to find a break in the rolling surf, the seasick Imperial Inspector ordered a change in plans. First they sailed north along the Washington coast to Willapa Harbor, which reconnaissance indicated was not suitable for a colony, and then they swung south again toward California.

A few days later the *Juno* slipped through the Golden Gate. Technically, San Francisco was forbidden territory. The Spaniards were not as sleepy as Rezanof had hoped; they had watched uneasily the ballooning Baranof trade empire to the north. And from Mexico City had come instructions that the

orders against trade or talk with foreigners applied especially to the Russians, then the most aggressive power in the Pacific.

But San Francisco is a long way from Mexico City, and the soldiers of the garrison, as well as the padres of the mission, were lonesome. Visitors were too rare a blessing to be turned away; besides, the Russians seemed to need help. The commandant gave orders to let Rezanof land. In doing so he lost a daughter and may have saved an empire.

The supersalesman from Siberia took one look at dark-eyed *Doña Concepción* and decided there were more important things than trade and war—or, perhaps, as cynics suggest, he saw in the Spanish beauty only a means to a diplomatic end. Under any circumstances, he was forty-two and a widower; she was sixteen and impressionable. The obstacles to their romance seemed insurmountable. Everyone objected. Their countries were rivals; Rezanof was not even supposed to be in San Francisco; he was Orthodox and she Roman Catholic; her father had other plans. But Rezanof turned on the charm. After convincing the local padres that though Orthodox, he was a devout Christian gentleman, he went to work on her father. The commandant's answer was only "Maybe"; if the authorities in Mexico City and Spain and the Vatican approved, perhaps. . . .

Rezanof said he would make them approve. He would hurry home to see the tsar in person; Alexander would apply a bit of pressure on Spain, he was sure. And as a preliminary in persuasion he talked the Spanish into overlooking the ban on trade with foreigners. The *Juno* was jammed with supplies for Sitka when she sailed north.

What Rezanof told Baranof no one knows. Perhaps he said simply that he was in love; perhaps he said a war might be unnecessary; if he were the Spanish commandant's son-in-law, surely he could arrange a deal with Spain. Working together, the Spanish and Russians could freeze out the British. From Sitka, Rezanof hurried on to Siberia and, landing, left at once for St. Petersburg. Somewhere on the steppes his sled went

through the ice. He crawled out, but a few days later he died of pneumonia. *Doña Concepción*, who had said she would wait, waited. She waited all her life. When word came of her lover's death, years later, she had already entered a nunnery.

The loss of Rezanof disorganized the Russian plans. Before Baranof was ready again, the Americans were entrenched at Astoria on the mouth of the Columbia. The old merchant was getting tired, but he had enough energy to found one last colony.

In 1808 two Russian ships had gone south to find a site to colonize in California. One was wrecked on Destruction Island off the Olympic peninsula of Washington and the crew was enslaved by the Indians, but the other located a likely spot on Bodega Bay in the California redwood country. The Russians bought it from the natives and in 1812 dedicated Fort Ross, a shipbuilding and otter-hunting community of about two hundred people, half of whom were Aleuts. The only objection the Aleuts had to the north California climate was that there was too much rain.

The attempt to colonize Hawaii came in 1815. King Kamehameha of the Sandwich Islands had great respect for Baranof, whom he considered as a brother Pacific monarch. He had once planned to visit the Russian at Sitka. So, although he had refused Britain and Spain the right to plant colonies on his islands, he permitted one of Baranof's agents to take land for a lumber camp. But when the Russians began to build blockhouses, he ran them out in a hurry. The Aleuts in the party were glad to go: Hawaii was too hot.

Baranof gave up after the first failure, which was unlike him. He was sixty-nine years old. With his knowledge of the Pacific, and Rezanof's drive and diplomacy, they might have changed the history of the hemisphere. But alone Baranof could no longer shake the earth.

In the far west as in the near east, Russia's urge toward warmer waters was halted.

Church and State

His southern ambitions squelched, Baranof settled down in Sitka. He devoted himself to entertaining skippers, building trade and, with lessening energy, fighting the priests.

Sitka was the capital of the coast, the spot all ship masters most looked forward to reaching. Not only did it have the best shipyard in the eastern Pacific, but Baranof feted famously. In his brightly lighted spruce fortress a visitor saw "ornaments and furniture in profusion of masterly workmanship and costly price." At his banquets it was common for "hundreds of fowl, hundreds of fish, and many deer and bear" to be served. Any ill-advised tourist who thought he could outcup the Russians was invited to try in vodka, rum and brandy.

The priests took a dim view of the blazing celebrations in the hilltop fortress. Although Baranof built radish-domed churches in the larger outposts and gave considerable money, his relations with the clergy were from the first lamentable. He had come to build a trade empire, and when he sent home for a priest—"one of learning, gentle, not superstitious, not bigoted, and above all sincere"—he thought he was ordering an aide. Other conquerors had found the Cross helpful. He did not reckon on the assortment of archmonks and miscellaneous ecclesiastics who descended on the Kodiak colony in 1794.

They were ten—St. Petersburg ascetics sadly out of place among the promyshleniki in the wilderness. And although the show-off Shelikof had been responsible for their assignment, misleading the authorities with tall tales of tall churches waiting in the Aleutians, the priests blamed Baranof for their misfortunes. Being human, they regretted their changed position. In St. Petersburg they had been looked on as Men of God; at Kodiak they were simply men who didn't work. The descent from the status of divines to drones embittered the newcomers.

Archimandrite Josaf Bolotof, leader of the first contingent

of the clergy, was dissatisfied with everything in Russian America, including the sex life. Baranof had tried to discourage the wilder forms of wenching, but he did not object to his men taking mistresses. Among other things, the native women met the hunters' need for seamstresses and cooks. While in Orthodox theory such labor need not be supplemented by more personal services, the Aleut women were accustomed to bedding with the men for whom they boiled fish and chewed mukluks.

There was also prostitution. And to the priests, forced to bunk in the stinking barracks with fornicating promyshleniki, there seemed ample justification for the archimandrite's angry report to the authorities at home: "The Russians are a hindrance, not a help, to my ministry because of their depravity, which I find in startling contrast to the strong moral fiber of the untutored natives. . . . I fail to find one good thing about the administration of Baranof."

Baranof complained too. He protested that these Orthodox proselyters, unlike their Catholic contemporaries, were more interested in comforts than converts. He could not see why they complained that the church was not built, that separate quarters were not ready, that they were expected to work, when warehouses and fortifications were still incomplete. He had asked for one priest and received ten. The community could not support ten men who did not work; so the priests were put to work. Baranof said his men were too busy on important tasks to supply the monks with wood, do their washing, cook their meals. For the priests, performing such chores was an unpleasant change from a life of St. Petersburg contemplation.

Juvenal Delinquency

Among the monks who arrived with the archimandrite was a slender, brown-haired Slav with more earnestness than intelligence. His name was Juvenal. After several years at Kodiak he decided to visit the Peninsula; there he hoped to find tribes untainted by contact with Baranof's roughnecks.

The Aleuts, who liked the young priest, warned him that the Iliamna Indians neither feared nor loved white men. He was not dissuaded. With an Aleut boy as guide, he crossed the strait in a bidarka and walked into the wilderness. The boy went with him as far as Lake Iliamna, then returned. But Father Juvenal never came back.

A year passed, and neither the priests nor the promyshleniki heard a word from the missing monk. Then an Indian boy from the Iliamna district came to the Russians with a strange story and a strange document—the priest's diary. The journal, which has been preserved, is of doubtful authenticity, but there is little doubt about the father's fate: he was murdered.

For a time Father Juvenal was a success among the Iliamna. He lived simply and impressed the Indians by his ability to withstand the impassioned advances of the girls who wanted to do his sewing, chop his wood, and make him comfortable. Such was his prestige that he made several converts. He had hopes of receiving the entire tribe into the true faith of the Russians, and when the chief and one of his wives were baptized, Juvenal had reason to believe he was near a major milestone in his missionarying. But the next day he was neatly pronged by a dilemma—the chief sent the rest of his wives to be baptized.

Young Father Juvenal could not decide whether to baptize them and thus tacitly approve bigamy, or refuse and insult the chief, thereby spoiling his chances of converting the tribe. He stalled, hoping that time might solve the unsolvable. And then, according to his journal, came tragedy:

"Last night I returned at the usual hour to my cell after prayers. . . . In the middle of the night I awoke to find myself in the arms of a woman whose fiery embraces excited me to such an extent that I fell a victim to lust before I could extricate myself. As soon as I regained my senses I drove the woman out, but I felt too guilty to be harsh with her."

The whole tribe talked. The priest was a man after all. They did not mind his moral misstep in the least; it was only natural.

The women who had been perplexed by his refusals renewed their offers. They acted in good faith and healthy lust, but Father Juvenal thought they were making fun of him. He ran from them, threw stones at them, begged them to stay away from him. His fear made them laugh, and their laughter drove him deeper into despair.

When the chief came to him and again asked about the baptism of his other wives, Juvenal acted impulsively. He told the chief that it was a sin to have more than one woman, and demanded that as a baptized Christian the ruler dispense with his surplus stock. The chief, insulted, refused. In the argument that followed, he knocked the missionary down with a ceremonial club.

The next day the women renewed their lusty persuasions, and again the anguished archmonk repulsed them. But this time the women formed a circle around him, joined hands, and would not let him through. He tried to push his way clear. The line of women gave, and he crashed through and ran headlong into one of the braves. There was a scuffle, a knife flashed, Father Juvenal fell.

The Indians cut up his body and threw it in the lake.

Great White Father

Ivan Popof, a burly, full-bearded giant from Irkutsk, is the finest figure in Aleutian history. He was a priest—and a great one—but he was also anthropologist, teacher, adventurer, mechanician, ethnologist, architect, historian, explorer, and Robin Hood.

An orphan, Popof was raised by the Church in the fur capital of Siberia. He grew up with interlocked interests in religion and the far fur lands. The almost inevitable result was that he entered the clergy—taking the religious name of Innocenti Veniaminof—and volunteered for missionary work in the Aleutians. Assigned to Unalaska, he crossed the Pacific in 1823.

Father Veniaminof liked everything about Russian America

except the Russians. He entered at once into the life of the Aleuts, learning their tongue, mastering the technique of paddling a bidarka, sharing their food. He was the natives' champion, but, unlike his predecessors, he kept the respect of his countrymen. Which made him effective. By his fierce insistence on gentle treatment of all natives, he saved the lives of many Aleuts; by his well-directed curiosity, he saved the story of their old way of life.

He was a good reporter and wrote in concrete terms. Take, for example, his description of the senses of the Aleuts:

"The sight of the Aleuts is always good and contrasted with that of the Russians incomparably better, so that for instance when a Russian barely notices something on the sea, the Aleut already sees what it is; if it is a little boat he can already discern whether it is that of one or two individuals; and when the Russian sees the boat, the Aleut has already recognized the paddlers. The reason for such fine vision they believe to be the fact that they do not use any salt in their food. (I used to hear the same statement from the Tungus, who also had exceptional sight.) Measurement by the eye in the Aleut is also very good. On the sea when there are waves they also are able to estimate the fall and the swiftness of the waves, and to distinguish ordinary waves from those over shallows or under-water rocks. For this reason hunting sea otter in the sea is possible only for Aleuts. The Russians, however apt they may make themselves with the small native boats, can never be sea hunters. . . .

"The hearing of the Aleuts appears to be no better than that of the Russians, if as good. This I have been able to test myself. Thus for instance, I heard the faraway noise of breakers and roar of animals, while the Aleuts with me heard nothing as yet; but they are able to distinguish noises or voices, though this depends on habit. They also have an ear for song and music, and a very good one, which is shown by the Aleut children that may be found among singers, while some play on the violin and the balalaika. . . .

"The taste in the Aleuts is their own—peculiar. In order that one may with appetite eat whale blubber, and fermented fish heads, and regard sour fish eggs as a delicacy—for this there surely needs to be a special taste, together with a not very refined smell."

For ten years Father Veniaminof was stationed at Unalaska. He helped the Aleuts build a church, completed in 1826, which until the Army began putting up warehouses was the biggest building in the Aleutians. In his own canoe he paddled along the Chain, reaching Adak to the west and Kodiak to the east. As he travelled he kept a journal, and his sharp eye and ability not only to listen but to draw aged natives into talking about the good old days resulted in the only detailed picture we have of pre-discovery life in the Aleutians. His book, *Notes on the Unalaska District*, ranks with Steller's *Beasts of the Sea* as one of the two most important books about the Aleutians; it remains the prime source of anthropological material on the Chain. No later work has matched his grammar of the previously unwritten Aleut language.

Besides learning to speak and write Aleut, Father Veniaminof mastered the tongues of the Kodiaks and the Tlingits. After his decade at Unalaska, he was promoted to the cathedral at Sitka, and the sympathy and study he had devoted to the Aleuts he also gave to the Tlingits.

At Sitka, Father Veniaminof was the big man in Russian America, overshadowing the governors who succeeded Baranof. (Baranof had been replaced as manager in 1818; he started back to St. Petersburg by ship, but the trip through the tropics was too much for him. He died off Sumatra and was buried at sea.)

Father Veniaminof's reputation for scholarship and effective reform reached back across the ocean and across the continent. In 1838 Moscow named him Bishop of Alaska. Thirty years later, shortly after Russian America was sold to the United States, he was chosen Metropolitan of Moscow, the highest office in his Church.

The natives, especially the Aleuts, were profoundly impressed by the Russian ecclesiastics, from the first archmonks through to the brawny bishop. A gentle people, the Aleuts appreciated gentleness in others. They saw that the priests were opposed by the other Russians, which made them regard the clergy as their allies. So the Aleuts got religion. They adopted the Orthodox ceremonies and added them to their own ethic which, except for a few sexual aberrations, was more Christian than that practiced by their conquerors.

This was the conquest that lasted. When the Russian flag was run down at Sitka and the Russian schools closed, the Russian religion remained behind.

A century after Father Veniaminof, the Aleuts remain devout.

III.

THE SEA

The sea never changes and its works, for all the talk of men,
are wrapped in mystery.

—Joseph Conrad

EARLY EVERY spring, usually in April, the seals of the eastern Pacific start swimming north. They turn from their winter haunts between the Hawaiian Islands and California and in family groups, alone, or in herds of hundreds, they follow their instinct back to their Bering birthplaces.

Somewhere south of the Canadian border, U. S. Coast Guard cutters meet the migrants. The slim little ships ride herd on the fury flocks until they reach the Pribilofs, a fog-bound scattering of islands two hundred miles north of Unalaska. The seals need no guides for their three-thousand-mile trip—only protection; it is protection the Coast Guard furnishes. The cutters check on all unfamiliar boats along the route of the annual migration, making sure they have neither pelts nor sealing equipment. The presence of a single seal hide can cost a skipper his ship, the crew and owners their freedom. Only the Aleuts, Indians, and Eskimos are permitted to take seals in open water, and the natives must hunt without rifles and from canoes or undecked boats.

In late April or early May the first bull seals slip through the Aleutian passes and up the Bering to the Pribilofs. The early comers flounder out of the sea and onto the rocky ledges of the four islands. There they settle to await the arrival of their harems—and the challenges of other males.

The fighting for the most seductive spots is fierce and prolonged. For weeks the roars and whistles, the crash of 400-pound bodies, the ivory clank of tusklike teeth, the screams of the wounded sound through the spring fog. Gradually the weaklings and immature are weeded out; they retreat to the interior and the undesirable beaches, where they form a sort of Bachelors' Protective Association to fight off pursuing bulls. Back on the mating ledges, the battles continue. During the second week of June, something new is added. The cows arrive.

The eighty-pound females wallow along the shore, studying the studs and the homey advantages of each ledge. They make their own choice of mates, slipping into the harem of the bull they deem most desirable. But fidelity is demanded, and the penalty for a cow who cheats, or even coyly grunts at another male, is severe—a beating, perhaps death. A bull may have from one to a hundred cows, depending on his combativeness and vigor. The average is about sixty to a harem. During mating season all his time is devoted to the defense and service of his females. He does not eat, or drink, or sleep. He may work off as much as half his weight.

Two days after reaching the rookeries the cows bear the pups conceived the previous year. For ten days they nurse their babies, then lope off to the water and wash and swim after fish. The bulls, still abstaining from food and drink, guard the nurseries while the females gorge for three and four days at a time and the bachelors sport in the surf. The returning mothers unerringly pick their progeny from the great pods of pups at the rookeries; they refuse to feed orphans, allowing them to starve. When the pups are six weeks old, their mothers nose them down to the sea and teach them to swim. By fall, when southern waters call, the babies are big enough to fend and fish for themselves. But the slim cutters return to see that no human hunters complicate the southern trip of the seal herd.

Not all live to swim south. While the mating is in progress, a group of scientists from the United States Bureau of Fish-

eries studies the herd, takes a seal census, examines the hides, and computes how many can be killed without endangering the survival of the species. Then the bureaucrats give the word to the Aleut hunters.

The hunt is really a slaughter. The natives go among the beached bachelors, picking out individuals of the chosen age group—usually three-year-olds. These youngsters are driven to the killing grounds, deftly clubbed unconscious, then stabbed. The skins are taken and the bodies made into meal and oil. The government has the pelts dressed and dyed, then sold at auction by the Fouke Fur Company of St. Louis. Fifteen per cent of the furs or of the profits from the sale go to Great Britain in return for refraining from deep-sea hunting. Until 1940, another fifteen per cent went to Japan. The rest belongs to the government. Already the people of the United States have netted from sealskins more than seven times the purchase price of Alaska.

The co-operation benefits all concerned, including the seals. The fur markets are assured a steady supply of skins. The Aleut hunters are paid in kind and cash for their work; they are supported by the government and encouraged to keep up their native crafts. And the seal herd, once vanishing, now prospers, not only in number but in quality. The careful selection of the kill from the ranks of the bachelors eliminates the unfit. Thus, even in the death of the individual, the herd is protected.

It was not always so.

The Past of the Pribilofs

Fog lay heavy on the Bering, and the *St. George* slid slowly northward. All hands were on deck, peering into the mist, watching the choppy, gray water. Soundings showed depth, but in these parts, the Russians had learned, reefs rose unexpectedly.

Seafowl wheeled overhead in great circles, and the mariners and their Aleut passengers watched them closely. Whenever a bird caught a fish, it flew north. Land lay somewhere not far ahead and the birds were flying to their nests. In the water, the sleek heads of seals showed. They, too, swam north, pausing occasionally to look at the white-sailed ship.

On the bridge of the *St. George*, Gerasim Pribilof studied the seals. This was his first command and the fur merchants had made it clear they wanted results. At Unalaska, two hundred miles to the south, he had seen the seals streaming through the passes. The previous fall he had seen pups coming from the north. Somewhere up there, he was sure, lay the breeding grounds. The home of the fur seal would indeed be a rich prize.

Through the fog came a sound Pribilof had never heard before, an intermittent roaring, punctuated by shrill, high cries—the battle noises of the bull seals. In the mist he could only guess at the direction. But he guessed right. Out of the fog loomed an island. He named it St. George, after his vessel; later he discovered a second island, which he called St. Peter and St. Paul's, after the patron saint of the discovery day. That was too much of a handle for the Russians who, by common consent, called it simply St. Paul.

Of that first visit to the seal islands, a contemporary of Pribilof wrote:

"The southern and western parts are surrounded by rocks, but the north is easy of approach, and affords good anchorage in a commodious bay for small vessels, not drawing over eight or nine feet of water. The whole island is volcanic, destitute of inhabitants, and only produces bulbs, plants, and berries which are to be met with on all the Aleutian Islands. They found the lowlands and surrounding rocks covered with sea animals, particularly ursine seals and the sea lions; and with the skins of these animals they nearly loaded their vessel. Pribilof called this St. George's island; and observing another island to the north at a distance of forty-four miles, he went thither in a large baidar (a native open boat), accompanied

by a number of Aleuts. This island is much smaller than St. George's and he named it St. Paul's; this, as well as the former, was the retreat of immense herds of seals. On St. George's island they passed the winter and found the inland parts overrun with foxes, who afforded them profitable chase. It also abounded with the tusks of the walrus, which they picked up on the shores."

Two smaller islands, now called Walrus and Otter, were discovered next, and a number of pin-point reefs. The Russians sealed them all, planting colonies of Aleut hunters on St. George and St. Paul. Eventually, under Baranof's Russian-America Company, the Slavs worked out a system strangely similar to that later developed by U. S. scientists. Learning from the disappearance of the sea otter that it does not pay to kill off the animal that gives the golden fur, the Russians limited the slaughter of seals to bachelor males and set strict quotas on the annual kill. Twice they suspended slaughter altogether. Because of their monopoly, the Russians could control the world price. They forced it up.

As the price per pelt increased, so did poaching. American and British merchantmen, running the Great Circle route to the Orient, slipped through the Aleutian passes and landed on the seal islands long enough to gather fortunes in fur to trade for tea in the markets of Cathay. The Russians were annoyed. First they barred foreigners from Alaska; then in 1821, Alexander I went further—he issued a ukase barring foreign ships from the Bering.

The Bering Sea, the Russian ruler proclaimed, is surrounded by Russian territory—Russian Alaska, the Catherine (Aleutian) Islands, Siberia. It is, therefore, a *mare clausum*, a Russian sea. Foreign ships venturing north of the Aleutians did so at the risk of confiscation.

It was a bold bluff. But it was only a bluff and it was called. The British lion growled about freedom of the seas; the Yankee clipper captains took on a few extra muskets and continued to call on the northern islands. And the tsar, who didn't have

much of a navy, looked the other way. The conqueror of Napoleon did not retract his ukase, but no ships were seized. A few years later the Russians signed a treaty allowing Americans to trade in their Alaska territory, and they leased a strip of the coast to the Hudson's Bay Company.

Then, one morning in 1867, the world awakened to find that, at four A.M., William K. Seward, American Secretary of State, had bought Russian America. About the only people who weren't surprised were a handful of far-western businessmen who, their eyes on the fur monopoly, had organized a lobby to support the purchase. Even before the American flag was raised over Sitka, agents of the yet unincorporated Alaska Commercial Company were preparing to take over the Baranof outposts—especially the sealing stations.

The New Boss

The Alaska Commercial Company was well headed and well heeled. It spent money wisely. Congress, angered because it had not been consulted by Seward, considered refusing the money to pay Russia. Alaska was believed worthless: one representative angrily suggested that the United States "pay the sum of \$7,200,000 to any respectable European, Asiatic, or African power which will accept . . . the territory of Alaska." But the lobby applied astute and pleasant pressure. Congress made the necessary appropriation.

The Bering seals were not the sole reason for the purchase, of course. In 1867 the United States was ebulliently expansionist; a proposal to buy Tibet would probably have found a measure of popular support. There is also a romantic theory that we bought Alaska because we owed Russia a favor—a five-million-dollar favor.

During the Civil War, when the Confederate tide was running full, the tsar of the Russias had helped save the American Union. Britain and France had been toying with the idea of

defying the Northern blockade and recognizing the Richmond government. Such a move might have been decisive, but before the other European powers got around to acting, the tsar sent major units of his navy on "good-will visits" to San Francisco and New York. The Russian ruler's interest was not primarily to aid Mr. Lincoln's government, but to upset British diplomacy and get his fleet out of its home ports in case of an English blockade. Regardless of the reason for the cruise, however, it bolstered the North at a critical moment. It was a turning point in the diplomatic struggle. And it cost the Russians five million dollars in naval expenses, which some officials felt the United States was obliged to repay.

In 1867 Britain and Russia, their interests clashing in the Balkans and the Near East, seemed headed for another war. In such a struggle, the tsar knew, the British Navy could take Alaska on a pleasure cruise. But if the United States held the land, the Br. h could not grab it; Alaska would at least be neutral, and the Aleutians could not serve as steppingstones for a British seizure of Siberia. The tsar's emissary, Baron Stoeckl, was under instructions to sell. He, too, had a war chest to use in winning friends for Alaska and influencing people in Congress.

Even so, the principal argument in favor of "Seward's Folly" was fur. A group of San Francisco businessmen, who had their eyes on the Pribilofs, applied the most pressure, and when the ceremony of transfer was made at Sitka, their agents were on hand to buy out Baranof's old company. But at the last moment another group, headed by H. M. Hutchinson—who had made a fortune in shoeing the Union Army and who knew the right Russians—stepped in and bought out the Russian-America Company, lock, stock, and ships in the harbor, for a reported \$115,000. Soon the most powerful of the conflicting interests merged into the Alaska Commercial Company and the second phase of the Congressional campaign started: the ACC had the Baranof posts, now it wanted the monopoly.

"As a congressional issue," Jeannette Nichols points out in

Alaska Under the Rule of the United States, "the 586,000 square miles of Alaska gold, coal, copper, salmon, etc., quickly assumed the guise of sixty square miles of seal rookeries."

The seal lobby presented reasonable arguments. Only a monopoly, they said, could keep the herd from being exterminated. Only a monopoly would bring the government revenue on its seven-million-dollar investment. Only a monopoly would develop Alaska. Only a monopoly. . . . By 1870 Congress, sick of unending talk about a land which had no voters, granted the Alaska Commercial Company a twenty-year lease on the rookeries, heaved a sigh of relief, and settled back to forget the whole business.

The next time Congress took a good look—twenty years later—the government had already received \$13,000,000 in rent and bounty, the seal herd was almost extinct, and we were involved in a wretched wrangle with Britain that threatened war.

2.1.1

Like all big outfits operating in raw-material areas, the Alaska Commercial Company had entered politics. It grandly claimed credit for all benefits of Alaskan development; its opponents blandly blamed it for all that went wrong, including earthquakes. Both sides polluted the press with charges and countercharges; both sides had stooges in Congress.

The Company, its enemies said, wanted to keep Alaska as one big game preserve. It tried to keep the population downtowns frightened animals. It tried to keep out industry—machines frightened animals, too. It bucked the attempts of settlers in southeastern Alaska to get territorial government because it wanted to remain a law unto itself. It harnessed the aborigines to a fur-catching economy which permitted them scant chance to learn the white man's ways.

The Company denied everything. It pointed to the school it had established for Aleuts on Unalaska. It referred proudly to the absence of disorder in Company-controlled territory, contrasting this with the anarchy of Sitka and the lawless southeast. It claimed, not without reason, that the Indians

and Aleuts and Eskimos were better off catching furs than hanging around white men's towns. It said, in effect, "Just keep the government out of things and everything will be all right."

But there was a catch. The seals were disappearing.

Seals at Sea

When the Alaska Commercial Company took over, more than two million seals made the Pribilof rookeries their home. Twenty years later the herd was only a fifth that size, and each season saw further depletion. The seals were following the sea otter into oblivion.

Since the Company agents slaughtered only bachelors, the Company at first could not understand why fewer and fewer females returned to the Bering rocks each year. But the answer soon became clear. The price of skins had risen to twenty-five dollars each, a point where it was profitable to hunt seals at sea. A sealing fleet, operated mainly from Canadian ports, was intercepting the migrants on their way north.

Each ship carried five to twenty crews of hunters, mostly Indians. On sighting a herd, the killers swung into small boats and rowed within spearing distance. A good hunter could hit a seal at thirty yards from a rocking skiff. The head of the spear was fastened by a light line to its detachable handle; when the seal dived the handle worked loose and acted as a buoy, marking the movements of the wounded animal. But even this ingenious Indian device did not enable the hunters to recover more than half of their kills. Seals sink almost immediately when shot, and hunters who used rifles retrieved less than one out of three of their kills.

The sealers made no effort to protect the cows. The ships cruised north with the herds, and when the seals reached the rookeries the hunters lay off the islands, barely beyond the three-mile limit, waiting for the females to swim back out for

good. It was efficient, deadly efficient; but it was wasteful, too. For every cow killed while feeding off the Pribilofs, a pup starved on the beach—twenty thousand babies died in one season—and with each cow perished the embryo of another pup. Three for one.

Each year more ships joined the hunt. Each year they travelled farther. Each year they took more seals. Soon the pelagic catch was larger than the Company's take on the breeding islands. And the herd dwindled.

The Company men called the sealers thieves and pirates and poachers; they warned the invaders away, mumbling dark threats about reprisals. But the sealing fleet outnumbered the Company ships, and their bucko crews and prospering skippers were not to be scared by words. "You think every seal in the Pacific wears the Stars and Stripes?" they asked.

And so, like other industries in trouble, the Company turned to the Federal Government for aid. In the halls of Congress the seal lobbyists began buttonholing members. Someone remembered Tsar Alexander and his old Bering Sea ukase. Why not, the lobby suggested, claim the Bering, east of the treaty meridian, as an American lake. Then the Navy could take care of the poachers. The talk swelled, and finally there was action—naval action.

In the summer of 1886, Captain C. L. Hooper of the United States Revenue Cutter *Corwin* opened orders that he liked. They were from Daniel Manning, Secretary of the Treasury in Cleveland's cabinet, and they ordered Hooper to proceed to the Bering and capture seal poachers. The orders said nothing about the three-mile limit.

That August the *Corwin*, probing the fog near St. Paul, came on a Canadian schooner riding four miles out. Captain Hooper maneuvered his cutter alongside the sealer, boarded her, and informed the surprised skipper that his ship was forfeit. In the next week, the *Corwin* captured two more Canadians and put prize crews aboard to sail them to Sitka. There, in a United States district court, the masters were found

guilty of breaking American law; the schooners were condemned to be sold.

In justifying the seizure, the court in effect ruled that the Bering Sea was American property, as much as Puget Sound or Chesapeake Bay. Tsar Alexander probably turned in his Crimean grave.

The Canadian skippers howled to the Canadian Government; the Canadian Government referred the matter to the British Government, which had a navy; and the Government of Her Britannic Majesty reminded the Government of Grover Cleveland about freedom of the seas. The American Administration took a dim view of the protest, and the revenue cutters rounded up another batch of schooners, thereby starting a new round robin of protests.

Outside factors complicated the controversy. Canadian Tories, angry because the American Senate had just rejected a fishing treaty, scuttled a proposed six-month sealing holiday. A plan for joint action by Russia and the United States in policing the seal waters fell through when the Russian Foreign Office decided not to complicate its already involved negotiations with Britain about Near East affairs by bringing in the Bering. Finally, on March 2, 1889, Congress gave way to the seal lobby and passed a bill defining our jurisdiction over Alaska as including "the waters of the Bering sea" and authorizing the president "to have said waters patrolled and infractors seized."

The *Corwin* followed through by bagging another brace of schooners flying the Union Jack—the *Black Diamond* and the *Triumph*.

Want a War?

It might have meant war.

The State Department's notes became hotly undiplomatic. "One step beyond that which Her Majesty's Government has taken in this controversy," thundered Secretary of State James Blaine, "and piracy finds its justification."

The Foreign Office's replies grew more and more chill. Lord Salisbury reminded Secretary Blaine of the American rejection of Tsar Alexander's Bering bluff half a century before. He denied the United States' claim to a special interest in seals homing on American land. And, in words interpreted as an ultimatum, he added, "Her British Majesty's Government must hold the Government of the United States responsible for the consequences which may ensue from acts which are contrary to the established principles of international law."

Big British warships were reported moving into the North Pacific. In this country, jingo journals called for war.

"Shoot any British ship which is in those waters," the Sioux City *Journal* demanded. The Detroit *News* declared: "British dominion on the North American continent should be given an end at as early a date as possible."

But there was no real war spirit. The New York *Sun* jeered at the idea of "policing the open ocean in the interests of good morals and pup seals." Blaine, in a private letter to newly elected President Harrison, said, "If we get up a war cry and send vessels to Bering Sea, it will re-elect Lord Salisbury. . . . Not a man in a million believes we should ultimately have war."

Since no one really wanted war, an unofficial agreement was reached. Sealing was to be suspended for one year. British warships were to help police the Bering. Meanwhile, the dispute would be submitted to the arbitration of a special seven-man international tribunal in Paris. Everyone huffed a sigh of relief and settled back content—everyone except the pelagic sealers.

They had argued from the first against any hunting holiday. Their ships were not easy to convert to more orthodox endeavors, and the crews if laid off a season would scatter. The agreement having been made by the British Government instead of by the sealers, they saw no reason to live up to it. The Pacific was big, the Bering foggy. They decided to go hunting anyway.

Poaching preparations were elaborate. Since the obvious way

to disrupt sealing was to watch the home ports of the seal schooners, the skippers arranged a way to avoid going home. They chartered a big British steamer, the *Coquittan*, and loaded her with enough supplies to last the poachers a season. It almost worked.

While the British warships stood a vain guard over the Canadian ports, the American squadron, composed of five cruisers and three revenue cutters, watched the Aleutian passes. Late in June one of the cruisers pounced on a poacher in Unimak pass. The scared skipper talked. He revealed the rendezvous of the *Coquittan* and the other ships. A few days later Captain Hooper nosed the little *Corwin* through the fog into Port Etches on Prince William Sound. He hit the jackpot. In port were the mother ship and most of her brood; on the *Coquittan* the agents found thirty thousand pelts. Sealing was over for the season.

In court the United States did not do as well as at sea.

The State Department was handicapped in arguing its case by the closed-sea ukase the Company's trained seals had pushed through Congress. It was, Secretary Blaine admitted, almost indefensible. In a note to the British minister he said, "The Government has never claimed it [*mare clausum*] : it expressly disavows it."

Blaine felt that the American argument should rest on the legal ground that pelagic sealing was *contra bonos mores*, against the public good, because it would inevitably wipe out the herd. If policing the high seas were not permitted, the seals would disappear. But with Russia, the other big Bering power, unwilling to arbitrate anything except American claims to Bering sovereignty, Blaine was forced to base his arguments on the ukase of Alexander and the act of Congress. He used bad arguments for a good cause and, almost fortunately, died before the decision was announced.

The court overruled the American claims on every point. The tribunal held that Russia had not had jurisdiction over the Bering, that consequently there was no jurisdiction to be

passed on to the United States. The Bering, it was decided, is legally part of the Pacific Ocean and therefore part of the high seas. The United States had no right to seize sealing ships beyond the three-mile limit. Canadian skippers were awarded half a million dollars in damages, and later the U. S. Court of Appeals reversed other condemnations, including that of the \$600,000 *Coquitian*, supply ship of the seal pirates.

Blaine's political foes were happy. The New York *Nation* trumpeted that the decision "declared Mr. James G. Blaine's history to be fiction; his geography, fancy; his international law, a whim." Congress was unhappy. Senators talked petulantly of ordering the seal herd slaughtered at once to end further squabbles.

But as an aftermath of the Paris meeting, an agreement was reached. It was faulty, but better than nothing. There was to be a short closed season in the spring, and sealers were to stay sixty miles from the rookeries.

It didn't work. The closed season was too short, and the females swam out more than sixty miles when seeking food. The slaughter continued, and though the pelt take dropped in quantity, it was only because there were fewer seals to kill. Japan made matters worse. In 1903 a Japanese fleet joined the cruising Canadians. Not bound by the treaty of Paris, the Japs worked through the closed season and ignored the sixty-mile limit. By 1911 less than a twentieth of the herd still lived. One more year of unrestricted sealing meant the end.

Only then was a compromise made.

On July 7, 1911, Japan, Canada, Russia, and the United States signed a treaty for the protection of fur seals and the few remaining sea otters. It made sense. Russia and the United States were to work their own rookeries on the Commander and Pribilof Islands, giving fifteen per cent of their take to Japan and Canada for keeping their pelagic fleets home.

The United States ran its rookeries with quiet efficiency. The herd swelled back to the two million mark. Not until 1940 was there more trouble. Then, in a move tied up with other

diplomatic wrangling, Japan announced that the seals were eating her fish and abrogated the agreement. No one is certain where the seals go between the time they slide through the Aleutian passes in September and when they show up off California in midwinter. But scientists agree they do not go near Japan. The reasons for the Nipponese move lay elsewhere.

Some thought Japan intended to resume large-scale sealing on the increased herd. Some thought she wanted more excuses for probing the Aleutian area with commercial ships. Some thought it was just a way of answering the rudimentary American embargo.

Then came Pearl Harbor.

The Blue Cow

Captain Barzillai Folger had brought the *Ganges* twelve thousand miles from Massachusetts to the Alaskan Peninsula when on a misty morning in 1835 the lookout shouted "Blow-ows, thar she blows." The whaleboat was lowered, the crew heaved their backs into the sweeps, the lance struck home, and the fight was on. Four hours later the battle ended. Black smoke rose from the oil pots aboard the *Ganges*. For the first time Americans had taken a whale in the North Pacific. The Northwest Right Whaling Grounds, richest in the world, had been discovered.

In less than a fortnight the *Ganges* was on her way back to New England, hull down with a pay load of oil for the lamps of America, whalebone to broaden men's shoulders and tighten women's waists. At Nantucket rival whalers smelled a fortune in her reeking holds. The Yankee ships which had swept almost clean the whaling regions of the South Atlantic and the Southwest Pacific sailed north into the cetacea-infested waters around the Aleutians, then farther north in the Bering and, exactly twelve years after Folger's first kill, the bark *Superior* breached Bering Strait and passed into the Arctic Ocean, the last retreat of the Right Whale.

Every year more ships joined the hunt. After 1845 more than two hundred and fifty ships were seen annually in the Bering, most of them Yankees. Fortunes were made, though not by the men who sought Moby Dick—a ship's master received \$900 for an average trip, a skilled seaman less than \$200. The owner sometimes made twice the original cost of his vessel. After the fabulous derelict *Essex* boiled out oil valued at fifteen times her purchase price on her first trip, older and older hulks were pressed into service. And worse and worse sailors were shanghaied for service aboard them.

The proud men on the Yankee clippers, their craft redolent of Canton's tea, would lean on the rails and sing derisively as they swept past the wallowing, stinking whale ships :

Oh, poor Reuben Ronzo,
Ronzo, boys, oh Ronzo,
Oh, Ronzo is no sailor
So he's shipped aboard a whaler,
Ronzo, boys, oh Ronzo.

Good sailor or no, Ronzo and his mates were well on their way to exterminating the Right Whale. There was a serious cetacea shortage by the Fifties, and many ships were coming back from the Bering with empty holds and echoing casks. At the same time the Russians started to equip a whaling fleet to join in the chase of the blue cows, as the whalers called their quarry. The whale seemed destined to slide into oblivion alongside the sea cow. But he was saved when, far away, men began to kill each other. The Crimean War broke out, and after their first successful year of whaling the Russians decided not to risk ships in the far Pacific. The field was left to the Yankees, who did not have long to rejoice. The depression of 1857 knocked the profits from both baleen and oil. The process of extracting kerosene from petroleum was discovered. When the Civil War started many of the oldest whaling ships were taken by the government and scuttled off Southern ports as part of the blockade.

And for the whalers who still ran the Aleutian passes, there was a new danger to add to fog and wind—the *Shenandoah*.

Hunted Hunters

Never was a cruiser more successful. In the history of naval warfare there is no other record of a lone vessel, operating around the world from her home port, completely disrupting an enemy industry. Such was the feat of the Confederate ship-of-war *Shenandoah*.

She was a fast ship, full-rigged and commodious, built in Glasgow for the tea trade. Very fast under sail, she could also steam, though at only eight knots. In the fall of 1864, when the tide was running strongly against the Armies of the Confederacy and the Navy of the South was blockaded or sunk, Southern agents bought the ship from her British owners and sailed her out of London. Off the African coast she held a rendezvous with another steamer and took on a new crew and her armament. Her assignment was to destroy or disperse the Yankee whaling fleet in the far north.

After capturing several ships en route, including six whalers, the *Shenandoah* reached the Aleutian area in June, 1865. The war had been over for weeks, but the *Shenandoah* had not heard. All through the month, the black-hulled raider plowed through the bleak Bering.

No whaler was safe. She captured them in clusters. Overtaking a Yankee, the *Shenandoah* would remove the crew, break open the hatches to make a good draft, pour out the oil from the deck casks, and put the prize to the torch. In all she took thirty-eight Yankee ships, mostly without struggle, all without bloodshed. Four ships she sent back loaded with the captured crews. The rest were burned or scuttled.

On June 28, 1865, the *Shenandoah* captured ten whalers, worth nearly a million dollars, that had gathered in Bering Strait to try to help a ship stove in by the ice. Two of the ships

were bonded, the rest burned—it was the last battle of the Civil War.

After a short dash into the Arctic Ocean, the raider's captain, James I. Waddell, decided to leave the Bering and sail south to try to capture San Francisco. He had learned of Lee's surrender from papers found aboard the captured whalers, but he did not believe the war ended. On July fifth, the *Shenandoah* shot the Amutka Pass in the Aleutians, almost coming to grief in a fog so thick you could have carved your initials in it. Before sighting land again, the *Shenandoah* spoke a British ship which told Waddell that not only was the war over but that his vessel was considered a pirate, subject to capture by all the navies of the world. In one of the most remarkable voyages on record, the *Shenandoah*, keeping out of sight of land, ran around the Horn, then dodged up through the Atlantic to Liverpool, covering the 12,000 miles from the Aleutians in 122 days and not once sighting land.

During the postwar years, whaling was resumed. There were fewer ships, fewer whales, less profits; petroleum had replaced whale oil as the light of the land. But long-suffering women still laced their waists into corsets, skinny males broadened their shoulders with baleen from the whale's palate, and dandies brandished whalebone buggy whips. So, for vanity's sake, the whaling fleet again rounded the Horn, slid through the fog, risked the Aleutian passes, and stabbed ever deeper into the ice floes of the Arctic.

Sometimes they went too far, turned back too late. In 1871 almost the entire whaling fleet, thirty-two vessels in all, was trapped in the ice. Years later, William F. Williams, who as a boy had been aboard one of the ships, described the disaster in a talk before a church group in New Bedford:

"We were in the *Josephine* off Point Belcher and my father decided to turn back. It was a beat to windward, but we hoped to get the shoals ahead of the ice. The sea room, however, was narrow, requiring short tacks and taking of chances in the shoal water along the shore. We had only made a few miles

to the south when one of those peculiar incidents happened which make sailors believe in luck, good and bad, only in this case it was bad.

"We were on the in-shore tack, trying to make every inch possible, the order was given for tacking ship, all hands were on deck, starboard watch aft, port watch forward, as was always the rule when working ship in close quarters. The ship was almost in the wind and coming beautifully, another minute and she would be safely on the other tack. The calls of the leadsmen in the fore chains showed that we still had water under our keel, when of a sudden out of the gloom of the snow there loomed a floe of ice right under our weather bow. There was a bare possibility that the ship would swing enough to strike it on her other bow, in which event we were all right, but as the sailors said luck was against us. She struck on her weather bow, hung 'in irons' for a few moments, then slowly swung off and stopped; we were ashore. The sails were all quickly taken in and furled, an anchor laid out to windward to try to keep her from going on hard. It was not rough as the ice had made a perfect lee, and as night had then set in nothing more could be done until morning. The next day was clear and fair and showed the greater part of the fleet at anchor outside of our position. Our condition was soon known to them and all sent their crews to assist in getting our ship off. . . .

"More anchors were laid out astern and the chains taken to the windlass and hove taut. Casks of oil were hoisted out of the hold and rolled aft, and finally she floated and was towed off to the other ships and her anchor dropped, as it later developed, for the last time.

"The pack ice had swung in until it was close to the shore at Point Belcher and at Icy Cape with most of the ships lying in the clear water between the ice and the shore, which here makes a long inward curve between the two headlands. The fleet was divided into four parts; the most northern, including four ships, was in the pack ice off Point Belcher. About ten

miles to the south and off Wainwright inlet were eighteen ships, including our ship, and all in a small area of clear water about three-quarters of a mile in width, between the pack and the shore. A few miles further south were seven ships, some in the ice and some in clear water; and just in sight from our masthead, still further south, were three more ships. At that time it was not clearly known whether the other seven ships of the fleet were in the ice or outside.

"At first we looked upon the situation as only a temporary hindrance, and the boats were sent off up the coast to look for whales. Our boats captured one which made us the recipients of many congratulations over our good luck. The weather was pleasant, but the wind, when there was any, was from the westward. Everybody prayed and whistled for a strong northeaster, but it did not come; instead the ice kept crowding the ships closer to the shore. . . .

"The water at the edge of the pack where we were anchored was about twenty-four feet deep, yet the ice was on the bottom and each day the tremendous force of the pack pressing in was driving it closer to the shore.

"September second the brig *Comet* was crushed by getting between a grounded floe of ice and the moving pack. On the seventh the bark *Roman* was crushed in a similar manner, only in this case the pack performed one of its peculiar tricks of relaxing its pressure, allowing the floe against the ship to draw back, as though gathering energy for another attack, whereupon the ship immediately sank, giving the crew but scant time to save themselves. On the eighth the bark *Awashonks* was crushed and pushed partly out upon the ice.

"It was now apparent that the situation was serious and consultations between the captains were frequent. It was finally decided that they ought to find out if any of the ships were outside the ice. Accordingly, Captain Frasier of the ship *Florida* went down the coast in a whaleboat and reported upon his return that seven of the ships were either outside or in a position to easily get out, but that the ice extended to Icy

Cape, a distance of seventy miles from our position. He also reported that these seven ships had only just got out of a position which at one time looked serious, and that several of them had lost anchors, but the captains promised that they would hold on as long as they could. The most assuring message was brought from Captain Dowden of the *Progress*, who said, 'Tell them all I will wait for them as long as I have an anchor left or a spar to carry a sail.'

"September twelfth the captains held their last conference and decided to abandon the ships on the fourteenth, all signing a statement which briefly gave their reasons, as follows: First, there was no harbor available that the ships could be got into; second, there were not enough provisions to feed the crews for over three months; third, the country was bare of food and fuel.

"My father decided that on account of my mother and sister, and perhaps also me, he would not attempt to make the trip in one day, so we started on the afternoon of the thirteenth and spent the night on the brig *Victoria*. I doubt if I can adequately describe the leave-taking of our ship. It was depressing enough to me, and you know a boy can always see possibilities of something novel or interesting in most any change, but to my father and mother, it must have been a sad parting, and I think what made it still more so was the fact that only a short distance from our bark lay the ship *Florida*, of which my father had been master eight years and on which three of his children had been born. The usual abandonment of a ship is the result of some irreparable injury and is executed in great haste; but here we were leaving a ship that was absolutely sound, that had been our home for nearly ten months and had taken us safely through many a trying time.

"The colors were set and everything below and on deck was left just as though we were intending to return the next day. All liquor was destroyed, so that the natives would not get to carousing and wantonly destroy the ships; but the medicine chests were forgotten. Later when the natives got to sampling

their contents, some were killed and others made very sick, in retaliation for which they burned several of the ships.

"We got an early start on the morning of the fourteenth and by rowing and sailing, the water being very smooth all the way, we finally reached Icy Cape and landed on the beach just as darkness was setting in. We still had several miles to go to reach the ships and as it was in the open ocean outside the ice, there were some fears as to our ability to make it with our boats loaded so deep. To add to our discomforts, mental and physical, it commenced to rain and blow, so that taken all in all it was a night that few of us will ever forget.

"By morning it had stopped raining and although there was a good fresh breeze blowing it was decided to start out as soon as we had eaten our breakfast. Our boat made the trip under sail and although we put in several reefs, it was a hair-raising experience. My father had decided to go aboard the *Progress*. She was still at anchor and pitching into the heavy seas that were then running in a way that would have made you wonder how we would ever get the men aboard, let alone women and two children; but it was all accomplished without accident. As fast as the boats were unloaded they were cast adrift, to be destroyed against the ice pack a short distance under our lee where the waves were breaking masthead high.

"By the next day every man of the crews of all the abandoned ships had boarded some one of the seven and sail was made for the straits. On the *Progress* there were 188 officers and men, besides three ladies and four children, one a baby in arms. . . .

"We stopped at Plover Bay long enough to take in a supply of fresh water, and then laid our course for Honolulu.

"And now just a brief statement of the sequel, which was not learned until the next year. In less than two weeks after we had left the ships the long-looked-for northeast gale came up and lasted several days. Some of the ships went off with the pack, some were sunk at their anchors, a few were burned by the natives and several went through the winter without

injury. Only one, the bark *Minerva*, ever came back, and she was saved by my father the next season.

"Our ship was destroyed where we left her, as my father discovered a portion of her bow sticking up out of the water and recognized it by the iron plating as she was the only ship in the fleet protected in that way. If we had waited until this gale came without doubt the greater part of the fleet would have been saved, but this was knowledge not possessed by the captains."

After the disaster of '71, whaling was almost finished. Only a few ships entered the annual chase. In the early fall of 1897 word reached the United States that eight whalers had become trapped near Icy Cape. Nearly four hundred seamen were locked in the ice pack. Although Arctic experts now feel that most of them could have survived the winter on short rations of whalemeat, the public and the press had visions of mass starvation—four hundred Americans versus scurvy, starvation, and a cold, creeping death.

The newspapers screamed for immediate action. President McKinley delegated the Coast Guard, whose ships patrolled the Alaskan waters, to make the rescue attempt. The Service chose the cutter *Bear*, herself an old whaler. The *Bear* was to get as far north as possible before the freeze reached down into the Bering, then send supplies overland. In as strange a voyage as *semper paratus* seamen ever essayed, the *Bear* set out from Puget Sound, raced the freeze north, put the Overland Expedition ashore near Nome in mid-December, and went back to Dutch Harbor to sweat out spring.

In the three-month, thousand-mile trek across northern Alaska, the seamen of the Overland Expedition broke through the winter darkness and Arctic cold to reach the stranded whalers, not only with supplies but with a herd of four hundred reindeer. When the rescue party first approached some of the stranded ships, the bucko boys of the whaling crews, as tough a tribe as ever shanghaied a shipmate, lined the rails and warned them off—they thought the rescue party were seamen

from another ship, come to sponge rations. Under Coast Guard care the icebound sailors lasted through the winter with only one death. After the thaw, the *Bear* brought home those whose ships had been crushed.

The rough whaling crews presented the Coast Guard with other problems than long-range rescues. The biggest was rum. Long before the Alaskan acquisition whalers had bartered with Aleuts and Eskimos for supplies. At first the trade had been largely legitimate—knives and guns and trinkets for food and fur and driftwood. But the white men soon found a more profitable currency in alcohol; neither Aleut nor Eskimo could take strong drink or leave it alone. The rumrunners found they could get anything from carved ivory to tattooed women for their liquid wares.

It took more than a change of flags in the far north to make the Yankee traders change their habits. Until the cutters commenced their patrols there was literally "no law of God or man running north of fifty-three," and the natives were so accustomed to buying drink from the Americans that when the *Corwin* made its first trip to the Aleutians and the skipper told the Aleuts he had no liquor, they indignantly pointed at the flag—all ships with that flag had rum.

The Bering is too big and too foggy for a couple of cutters to control completely, but the *Bear* and *Corwin* captured the most notorious smugglers, broke the legitimate whalers of their booze-and-baleen economy, and tidied Aleutian affairs considerably. At the turn of the century their problem was simplified—the whalebone industry died a sudden death. First someone invented a metal corset stay, then Henry Ford started turning out autos and only for a year or two was it fashionable to carry a whalebone buggy whip in a Model T.

Now the whaling industry is strictly small time.

Odorous Akutan

Akutan is a small, round, sulphurous, stinking island northeast of Dutch Harbor. On its barren banks stands an odd group of buildings, the whaling station of the American Pacific Whaling Company. They form the nearest thing to a factory in the Aleutians.

From this base a fleet of small, powerful ships conducts mechanized warfare against the descendants of Moby Dick. The romance has gone out of whaling—but not the danger. These tiny boats, carrying less than a dozen men, buck the Bering at all seasons and shoot the Aleutian passes in fog so thick that the pilot steers by the echo of his steam whistle.

As on the old white-winged whalers, a lookout mans the crow's-nest of the powerboats. When he sights a whale, his cry no longer sends men into the whaleboats. Instead a gunner runs to the bow and arms the Sven Voyn gun—the main armament of the Akutan navy, an ingenious instrument which fires an explosive harpoon with expanding barbs, so cruel and effective a device that it is odd it is used on whales instead of men. With it the whalers harvest about two hundred blue cows a year.

After the harpoon strikes home and explodes, the fight starts. Usually the giant is mortally wounded by the blast and quickly bleeds to death; but if not, he is shot again, or a few men set out in the small boat and lance him. The dead whale is pumped full of hot air, which forms gas and keeps him afloat; then he is towed back to the station for processing.

Aleut factory hands quickly drain the free oil from the mammoth's skull, peel the yard-deep blubber from his body, with the aid of steam engines, cut off some whale steaks for dinner, and carve up the rest of the flesh for the boiling pots. Oil is taken from both the blubber and the meat. The boiled blubber becomes fertilizer, the boiled meat food for the dog teams of the far north. The bones and even the baleen—once

the prize which lured hundreds of ships into these dangerous seas—are now the least valuable. Usually they are ground into fertilizer. Sometimes, from some faraway point, comes a request for corset bone.

Everything is used except the smell, and the mariners claim they even have a use for the odor. Since the whaling station was built, the pilots say, no ship has run aground on the foggy shores of Akutan. You cannot always see the island, but you can always tell it is there.

Boom Town

When Father Veniaminof came to the Aleutians in 1824, Unalaska was the principal town. Its population was about three hundred. In 1937, still the main metropolis of the Chain, Unalaska boasted three hundred and fifty inhabitants. But for a time early in the century it had yielded first place in size to the neighboring village of Dutch Harbor, which from a cluster of ten buildings suddenly exploded into a roaring town of several thousand, the bawdy queen of the Alaska Gold Coast.

After the Gold Rush slowed to a stroll, Dutch's population dwindled to a scant seventeen, and its only claim to fame for years was a brick apartment house, the only brick building in the Aleutians. The site of an important naval base, it again rivaled Unalaska during the war. Now it is almost deserted.

The New York-Chicago antagonism of the two tiny Aleutian communities is all the more intense because outsiders usually think of them as the same place. Both are located in Unalaska Bay on the north side of Unalaska Island, but Dutch is not on Unalaska proper. Instead it lies on the east side of the little island of Umaknak, deep within Unalaska Bay. No one knows for certain where Dutch got its present name. Tradition says that a Dutch ship was the first to use its harbor, but the Russians called it by a native word, "Udakta," and the Americans at first dubbed Dutch "Lincoln Harbor."

Facing its rival across a narrow channel is the charming church town of Unalaska. The Aleuts called it Iliuliuk, "The Beach that Curves," and on a clear day the town is as beautiful as its name—a scattering of white wooden buildings, red-roofed, set on the wide green skirt of tundra that spreads out below snow-spangled Mount Makushin.

Unalaska was selected by the fur-taking sadist, Feodor Solovief, as headquarters for his trapping and torture business. It quickly developed into the most important Russian base in the Aleutians. The harbor, protected by a mile-long natural breakwater, is magnificent; more important, it lies directly on the routes from Russia to America, and from southeastern Alaska to the Bering Straits. The port on the big, food-producing island was a logical place for ships to pause.

Under Baranof, Unalaska became a major post for the Russian-America Company. But though important, it was not big. Sarachiev, visiting it in 1806, described the town as a collection of mud huts around driftwood buildings of the fur company. And Father Veniaminof, eighteen years later, found the Russian houses so few and so crowded that he and his family chose to move into an Aleut barabara. Veniaminof built a new radish-domed church—the decorations of which are to be found in the present wooden cathedral, but Unalaska did not expand greatly.

When the United States acquired Alaska, the Unalaska buildings of the Russian-America Company passed into the hands of the equally monopolistic Alaska Commercial Company. The Company did not encourage settlement of its town by outsiders, but it did set up many of the neat, white clapboard buildings which mark the town today.

Although the Company did not welcome settlers, it went out of its way to aid explorers. When the Navy's North Pole Expedition, under Lieutenant Commander George Washington De Long, stopped at the island in 1879 in the *Jeannette*, the post manager was instructed to refuse payment for any goods the explorers needed.

"This is a very pretty little place in some respects," De Long wrote his wife. "It has a beautiful land-locked harbor surrounded by hills covered with beautiful grass and looking as green as Brick Church (a village near New York). It is quite warm and pleasant. But the mosquitoes. . . .

"There is not a white woman here, nothing but men and natives. There is a church here, a Greek church, and yesterday the priest was busy all day marrying couples. The steamer *St. Paul* brought down a lot of men from St. Paul's Island and St. George's Island who were candidates for matrimony. They reached here Thursday last; made their selections on Friday and Saturday; were married yesterday, and took a stroll to the hilltops in the afternoon. Some of the men find nothing to suit them and are hanging around in a state of indecision."

But De Long was not charmed with the available charts of the waters around Unalaska. "Here we are at last," he wrote, "after knocking around two days in thick fogs among a hundred or more islands, very incorrectly laid down on the charts (some of them not at all) and getting mixed up generally. I have seen some crooked navigation, but our experience in getting through the passes into the Bering Sea goes far beyond anything for difficulties. Our great troubles were thick fogs and terrible tides. We were never able to see more than three miles in any one direction, and then only for a few minutes at a time. Getting observations was out of the question, for when we could happily see the sun we could not see the horizon; so we had to grope our way along like blind men. . . ."

Gradually the major passes became better known. As Alaska got government, offices were established. The Revenue Service, later the Coast Guard, began to use the port for a base. In the early Nineties the North American Commercial Company, the one great rival of the Alaska Commercial Company, planted warehouses and offices at the obscure little settlement of Dutch Harbor. And then—gold!

The gold was 660 miles away, on the beaches of Nome. But the only way to Nome was by water, and the route ran right

past Unalaska Bay. Both the A. C. Company and the N. A. Company found it more profitable to get their gold by running passengers north for \$125 a one-way passage and hauling freight at \$40 a ton than to scrabble for it on the beach of Cape No Name. The discovery of the tidal-water treasure-trove was made in the fall of 1889. By the time the news reached Seattle and San Francisco, it was too late for stateside stampedes to reach the new El Dorado before the Bering froze for the winter. But everyone wanted to be first. To get a head start, many booked passage to Unalaska; there they intended to wait until the northern Bering melted.

Every available ship was pressed into service. One enterprising craft hauled two hundred passengers and a herd of cattle north on a raft. When a storm arose in the Gulf of Alaska the skipper of the tug had to be argued out of cutting the raft loose. At Dutch this same energetic entrepreneur sold the livestock to his passengers for fabulous prices after they found that the hungry hordes waiting to go north had long since eaten all the meat—fresh, preserved, or putrid—on the crowded island.

Five thousand gold seekers left Puget Sound ports for Nome before the Bering opened for traffic in 1890. Most of them waited at Unalaska for the thaw. Both Dutch and Unalaska swelled mightily. What wood there was went into saloons and bawdy houses. The transients without tents either slept in the open or built barabaras. At one time an estimated ten thousand persons were on the island. It still shows the scars.

But the glitter of Nome's beach faded. The public learned there were more fools than gold on the bleak sands, and the boom towns of the Aleutians collapsed. Unalaska fell back to its basic three hundred. Dutch dropped down to little more than a trading post. At first the people rattled around in the overgrown shells of the towns, but before long the deserted buildings were torn down for fuel, the jerry-built barabaras collapsed. Unalaska was back to normal.

The Navy's establishment of a radio station on Umaknak,

half a mile up the beach from Dutch, caused a brief flurry of excitement in the Aleutians, especially when work began on the brick apartment house for naval personnel. But Unalaska could afford to be a bit complacent. It still had the headquarters for the Coast Guard, the Coast and Geodetic Survey offices, a church, an office of Indian Affairs hospital, a Territorial School, a Methodist mission, two or three stores, a pair of cafés, a deputy U. S. commissioner, a deputy U. S. marshal, a postmaster, and a doctor. No other Aleutian town could boast a quarter as much.

Still, except for fishing and hunting, there wasn't much to do. The main excitement of the year came when pick-up teams from the Coast Guard vessels played baseball with cadets off visiting Japanese vessels.

Silver Horde

No big rivers cut the Aleutian tundra or notch the basalt bastions of the Alaska Peninsula. But down the sides of the fire mountains flow hundreds of little streams, steep and fast and beautiful—the most important economic asset of the region.

Every spring, when the streams are high with melting snow, the salmon return, the silvers and the sockeyes, the chums and the humpbacks, the giant kings. They come in a rush, filling some streams from bank to bank until the top fish gasp out of water. Up the streams of their birth they struggle, up the parent streams they floated down as fingerlings five years before, up and up to their natal water, up and up to spawn and die.

And each spring, as regularly as if moved by the instinct that calls the salmon, the fishing fleet returns, shabby, malodorous ships high with nets, crowded with laborers—Filipinos from Seattle's Little Manila, Chinese from Portland and San Francisco, football players from the University of Washing-

ton, Croatians and Finns from the fishing towns of Puget Sound, Mexicans from Los Angeles, boys from high schools, derelicts from the skid row.

As the beauty and life of salmon fill the mountain streams and the unromantic ships roll on the shallow waters of Bristol Bay, north of the Peninsula, the canneries fire up, the Iron Chinks begin to clank, and at Koggiung, Kvichak and Snag Point, at Naknek, Clark Point, and Ukuk, at Point Moller, Coffee Creek, and Kwiguk, the salmon pack is under way. From the canneries in coves of strange names come one fifth of the world's annual supply of canned salmon, a twenty-million-dollar harvest.

It is easy to catch salmon. They can be taken in traps, in nets, on lines, with spears, even with the bare hands. The most economical way is to net them in streams as they fight toward their spawning place—but that way lies disaster. Were it followed, the salmon would be wiped out and the industry destroyed. So the Fish and Wildlife Service, which worries aplenty about the depletion of Alaska's greatest resource, has banned commercial stream fishing. All catches must be made offshore. This serves a double purpose, for once the salmon enters fresh water, his whole strength runs to his sex glands, his flesh softens and loses texture, he bruises himself badly jumping the falls.

In the Aleutian area, the Columbia River gill-net boat rules the waves. Of eighteen million salmon taken off the Alaska Peninsula in an average year, more than seventeen million were caught by the gill-netters. The Columbia River gill-net boat is a small, durable, untrim craft, usually twenty-nine feet long, and built to carry two men. It can be rowed or sailed and, almost indestructible, is built to survive frequent beachings in the shallow tidal waters of Bristol Bay. No beauty, it is wonderfully efficient; without it, your salmon would cost more.

During the short season set by the government, the fishermen lay their nets—which are limited in length, depth, and size of mesh, haul in their catches, and when loaded go either to their

cannery or to a power scow which handles the take of several boats. In 1943, an average year despite the war, 581 gill-net boats worked western Alaskan waters. Seventy-four scows serviced them. These scows are important. Because the sudden whip of the williwaw often broke towlines between barge and tug, the canneries developed a power scow, a squat, serviceable ship built for Bering duty. Later scows of this type were our secret weapon of supply in the reconquest of the Aleutians.

Loaded with salmon, the scows butt up to the cannery. An endless belt scoops up the fish and feeds them to the Iron Chink, a mechanical monster that guillotines and guts the salmon—a messy job formerly delegated to coolies. Next the salmon are sorted into species. There are five types, each with two names: king or chinook, red or sockeye, pink or humpback, silver or coho, and the keta or chums.

The king arrives first—in late April—is biggest and tastes best, but economically he yields to the more numerous red, the second species to start up the streams. The reds are followed by pinks—little fellows; and the last to arrive are the late-running silvers. The ubiquitous, unloved chums run most of the summer. They are used mainly for dog food.

The sorted salmon are canned according to the color of their flesh, the cans are sealed and crated, the season ends. By August it is all over until the next year.

Troubled Waters

Salmon are wealth. So salmon have long been in politics, both national and international.

Before the war, when an Alaskan was asked about the salmon industry, he was likely to curse Seattle and San Francisco first, Tokyo second, with some pale blasphemy saved for Washington bureaucrats. Here's why:

The first cannery was built in Alaska in 1878. Before that, the Aleuts and the Russians had dried salmon into a food called "eukala" and salted it into something known as "baleek."

But the market for such delicacies was strictly limited to Aleuts, dog teams, and starving whites. Not so canned salmon. Although Eastern fish operators long claimed that the Pacific had too low a saline content to produce good fish, Alaskan salmon proved popular. As canning methods improved, the market expanded. Soon it was world-wide: salmon were big business.

Having little money, Alaskans had to let outside capital build the canneries. Seattle and San Francisco operators and the remote-controlled Alaska Commercial Company put up the plants. At first the native northerners did not object to this, for the canneries meant sales for local merchants and wages for local workers even though profits went back "Outside." But prices and wages are high in Alaska and labor is scarce. The canneries soon were big enough and rich enough to haul their own supplies and bring their own workers from the States. The Alaskans couldn't see that, couldn't see it at all. They still can't. For a company with headquarters in Seattle to send up Outside ships with Outside supplies and Outside men to catch Alaska's salmon, can the fish in Alaskan harbors, then sell them Outside and keep all the profits seems, to the residents of the Territory, nothing short of legal poaching.

In Washington, where many of the decisions concerning fishing are made, the well-heeled companies are able to play the political game and protect themselves in the legislative clinches. But in the Territory they have more trouble. Feeling in some communities is high enough so that, what the companies are for, a large number of people are automatically against. Still others, of course, are in thoughtful opposition. But in such emotionally troubled waters, demagogues have happy fishing.

On one subject, however, the Alaskans and the companies find themselves in complete and passionate accord: Alaskan salmon are American and should be caught and canned only by Americans. Since 1930 this feeling has been the most important political factor in the Territory.

Enter the Japanese

On a rare, fog-free day in June of 1930 an alien fleet steamed into Bristol Bay and anchored offshore, a careful mile beyond the curve of the three-mile limit. There were big ships and little ships in the fleet. The big ones were floating canneries, the little ones high-powered fishing boats. They had come to can salmon, and they flew the flag of the rising sun. Alaska was outraged.

The cannery operators felt the invasion in their pocketbooks, where it hurt most. While the Japanese ships worked the Bristol waters, unbound by the Fish and Wildlife Service's regulations on season and size of nets, the Alaskan catch fell drastically. The operators feared that unregulated competition from across the sea would wipe out the Alaskan salmon runs.

The Alaskans felt the Japanese encroachment in their patriotism. Always suspicious of foreigners, deeply bitten by race prejudice, native white Alaskans had long hated and feared the Japs. Of all Americans, Alaskans alone had taken seriously Billy Mitchell's warnings about a Japanese seizure of the Aleutians. They knew that Japanese naval officers had carefully studied the island approaches to their huge, empty land. Alaskan children grew up playing games of hide and seek in which the Coast Guardsmen tried to catch the Japanese poachers. There was much fear in their hatred—only the Alaskans realized how woefully unprepared their underpopulated land was for defense.

So while the alien fleet worked Bristol Bay, civic leaders joined cannery operators in screaming protests, in begging Washington to have the Army and the Navy do something. But the boiling protests simmered down as they filtered through the coils of the State Department and were cooled into the language of diplomacy.

The United States politely asked what the fishing fleet was doing in Bristol Bay; the Japanese politely answered, "Fish-

ing." The United States politely protested; the Japanese politely pointed out that they had remained beyond the three-mile limit, and gently reminded the United States that the last time we had declared waters closed we had taken a trimming in court. Still politely, the American State Department mentioned that the fish in question were born in American streams, returning to American waters to die, and were protected during their infancy by American agencies at considerable expense to American taxpayers. The Japanese asked, a trifle impolitely, if the fish carried American passports.

This sort of thing went on for years. During those years the Japanese kept fishing Alaskan waters. Alaskans claimed the ships were manned by Nipponese naval officers who examined every island in the Aleutians; but down in the States such talk was set down as emotionalism. Besides, where in hell were those Aleutians?

In 1935 the Japanese Diet appropriated money for research on open-sea fishing, and Tokyo told Washington that the Imperial Government was going to suspend commercial fishing for a time but wanted to conduct some research. Washington said, "All right." The Alaskans and the cannery men were not so agreeable; to them the research indicated that the researchers planned to be even more thorough in cleaning out the salmon later. Besides, they suspected the Japanese of cheating. The cannery operators hired planes to fly over the research ships, and the pictures looked very much like the old floating canneries. That did it. The companies, in 1938, announced that their crews were going to be armed. Not only armed but under orders to fire on any trespassers in Bristol Bay fishing areas.

It looked as if a little war were about to start.

But before the words could turn to bullets, the Japanese announced that they had finished with their experiments and did not intend to fish Bristol Bay commercially. They kept their word, in a way. When they came back it was not for fish.

IV.

THE WAR

I am thinking of Alaska. In an air war, if we were unprepared Japan could take it away from us, first by dominating the sky and creeping up the Aleutians. It could work both ways, of course. We could jump off from Alaska and reduce Tokyo to powder. But if we were asleep, without planes, Japan might well seize enough of Alaska to creep down the western coast of Canada. Then we would be in for it.

—Gen. Billy Mitchell, 1923

You may have thought that the Chiefs of Staff in Washington were not paying enough attention to the threat against Alaska and the Coast. We realized, of course, that such a Japanese threat could become serious if it was unopposed. But we knew also that Japan did not have the naval and air power to carry the threat into effect without greater resources and a longer time to carry it out. Preparation to throw the Japanese from that toehold, that very skimpy toehold, had been laid even before the Japs got there, and the rest of the story you know.

—President Roosevelt, 1944

EARLY IN 1942 a pile of huge boxes stood on the docks in Seattle. Any spy could see them, and several probably did, for the Seattle waterfront is a hard place to keep a secret. The crates were marked for delivery to the Blair Fish Packing Company, Umnak, Alaska. This was not surprising; war or no war, the salmon and the fishing fleet would soon start for Aleutian waters. But there was something the spies did not know about those boxes.

In many ways the Japanese intelligence knew more about the Aleutians than we did. The Japs had modern charts of the Chain; in places ours were still based on the Russian survey

of 1864. The Japs had climbed the mountains and surveyed the islands which on our maps were marked "Unexplored." Japanese fishermen landed regularly on spots known only to a few stray American geologists. But Japanese G-2 did not know that there was no Blair Fish Packing Company. The oversight saved many American lives. It also saved Dutch Harbor.

In June of 1942 Japan swung a one-two at American bases in the Pacific. The Japanese drive to the south had been stemmed; American supplies and troops were flowing into Australia in great force. So the Jap naval chiefs decided to smash the U. S. bases in the eastern Pacific before turning south again. The left lead of their one-two was a solid blow at Dutch Harbor, our Aleutian anchor; the roundhouse right was aimed at Midway.

The first blow fell on the third of June. I remember as though it were yesterday the sick feeling in my stomach as I stepped out of an elevator in the Time & Life Building and saw the headlines: DUTCH HARBOR BOMBED. But, though I was raised on Puget Sound, where Alaska is thought of as part of everyone's backyard, I forgot about Dutch in the excitement over the news that came soon after: Japan's second blow, the pay-off punch at Midway and Hawaii, had been parried.

Nearly three years passed before I learned, up in the Aleutians, the story of the attack on Dutch and the strange part the Blair Fish Packing Company played in the Jap defeat.

But first, the background. . . .

Without Armor

Military thinkers agreed on few things before the war, and Alaska was not one of the few.

Geopoliticians, aviation enthusiasts, and assorted heretics led by boisterous Billy Mitchell, who as a lieutenant had strung wires in the Yukon Territory for the Alaska Communication

System, said the Territory was the most important strategic spot in the world. Way back in 1920, Mitchell was pleading for cold-weather research, begging for permission to turn the Territory into a huge airfield, demanded that fliers be trained for operations in the interior cold and the Aleutian fog.

Conventional military thinkers harrumphed at the idea of planes bombing New York from Alaska and hooted at the thought of military operations in the Aleutian storm cradle. These men knew their geography, of course—to accuse generals and admirals of being misled by Mercator projection maps is nonsense, but the brass believed the problems of weather and supply were so great that Alaska could not play a major part in the war.

The Alaska Highway was not built at that time, so strategically the Territory was still an island. On the Navy rested the primary burden of its defense, and the admirals, who recognized their responsibility, thought only in terms of defense. The Navy's plans for an offensive in any Pacific war were predicated on our possession of an advance striking base in the Philippines. Only the airmen argued that Alaska had offensive possibilities. Further, the Navy was hampered by the terms of the Washington Naval Limitation Treaty, which banned the development of new bases in the Aleutians. As a result, nothing was done for many years to bolster the defense of Alaska.

When war broke out in Europe there were three hundred soldiers in Alaska, not counting the Army's semi-civilian wireless operators who were scattered about the Territory in groups of two or three men. The Navy had a small base at Sitka, an appropriation for one at Kodiak, a radio station at Dutch Harbor, and an undeveloped naval reserve area at Kiska.

Twenty-seven months later, when the Japanese caught us with our planes down at Pearl Harbor, the situation in the north was better—but not good. The Army was building airfields at Anchorage, Fairbanks, and Seward; the Navy was developing seaplane bases at Kodiak, Sitka, and Dutch Harbor.

There were about thirty-five thousand troops of all classes, most of them scattered in small units and without complete equipment. Less than one hundred planes, many of them obsolescent, operated from the new bases.

Command was tenuous and confused. The Army troops made up the Alaska Defense Command under Kentucky-born Simon Bolivar Buckner, Jr., later killed in the invasion of Okinawa. General Buckner was responsible to General John L. DeWitt of the Western Defense Command, two thousand miles away in San Francisco.

For the Navy, each Alaska station was a command unto itself, run by its ranking officer, who was responsible to the chief of the Alaskan section of the Thirteenth Naval District, who was responsible to Admiral Freeman. From top to bottom, Army-Navy liaison was lacking. At one naval base, where troops were brought in to protect the installations, there was no phone between Army and Navy Headquarters. When war came the commanding officer learned about it by a commercial radio broadcast before he received word from the War Department.

The Japs wanted Alaska and it was vulnerable. Why, then, didn't they take it? Probably only because the Japanese war lords did not want to risk a northern campaign until they found how their bid for the empire of the Indies worked out. After overrunning the Orient, they could turn their full strength into the Aleutian-Alaska-U. S. hop, skip, and jump.

But our Pearl Harbor paralysis wore off sooner than Japan expected. The Jap naval chiefs decided they had to try again. Perhaps remembering they had muffed one marvelous chance by bombing Hawaii instead of invading it, they decided to make their new moves permanent. Midway and Dutch were to be captured. This time transports moved east with the Japanese fleets—a big fleet for muscled Midway, a smaller fleet for defenseless Dutch.

Dutch Treatment

Dutch Harbor is miserable in early June. Except for dirty patches, the snow has melted and the mud is deep. The sky is always a heavy gray and the Bering reflects the sky. A procession of storms, not severe enough to be damaging but steady enough to be depressing, marches in from the west, day after dreary day. Under cover of one of these storms came the Jap fleet: two carriers, three cruisers, and supporting destroyers. They approached undetected.

On the decks of the Jap carriers crews loaded bombs into bays of the stubby bombers, checked the motors and guns of the Zero escorts. Below, the pilots were briefed. Escorted bombers were to case the layout at eastern Unalaska, paying particular attention to the naval base and the Army post. Unescorted bombers were to swing over western Unalaska and neighboring Umnak. A group of fighters would come in late to give support to either group if it were in trouble.

With the carriers lying in the Pacific, south and east of Unalaska, the enemy pilots climbed into their planes. The mechanics wished them the luck they were not to have, and the Japs took off into the early, ugly dawn.

An hour and a half later four bombers bored out of the low clouds over Dutch. It was hardly a Pearl Harbor. Few ships were in the big bay: a few destroyers and mine sweepers, an old steamer which served as barracks for civilian workers, and a newly arrived transport. The Jap fighters swarmed onto a commercial plane which was just leaving the runway and shot it into a crash. The bombers made a pass at the destroyers—gray ducks sitting.

Caught almost completely off guard, armed with antiquated, low-ceiling antiaircraft guns, the ships were theoretically defenseless. But the morning clouds and the requirement of reconnaissance had brought the Japs down into range. Ships' gunners exploded one and winged a second which skidded

through the wet sky into the side of bare Mount Ballyhoo. A third plane was torched by shore-based batteries. The rest of the flight swung over Fort Mears, bombed a barracks, shot the place up, and headed back to sea.

At about the same moment the second group was taking its turn over the western half of the island. They had found nothing—no troops, no ships, no trenches. The setup for a landing seemed superb. Then, from out of the west, appeared a flight of P-40s. In a quick, wild fight in the low clouds the Japs lost three planes, which probably didn't bother them nearly so much as the suspicion that there might be an American air base on Umnak.

Minutes later, probably drawn by the radio shouting from the beleaguered bombers, some Zeros raced toward Umnak. They failed to find the P-40s but did see something worse—a black air strip slashed across the green tundra. Then they tangled briefly with a pair of cumbersome Catalina patrol bombers and beat it back to mama, screaming the sad news of Yankee deception which put air bases where there were not supposed to be any.

For the moment the battle was over.

The eastward-moving storm front had covered the enemy's approach. But it did not stand still when the Jap carriers turned into the wind for the take-offs. By midmorning it was over Umnak and Unalaska. At Fort Mears soldiers stood in the revetments, behind the soggy new sandbags, and stared at the low, heavy sky. At Dutch, a mile away, the destroyers had steam up, the ack-ack boys were arguing about whose guns had picked off the attackers. At the air strip on Umnak the mechanics serviced the Warhawks. Overhead the Navy's all-weather Catalinas, whose pilots claimed they flew in weather so thick they needed periscopes, wheeled in widening circles, bird-dogging for the enemy fleet.

And somewhere to the west, the Jap admiral also stared at the sky, at his charts, and back at the sky again. How many planes had the Americans? Where were they based? A Catalina came

into sight, its radio popping names and numbers. The admiral's unhappiness increased. Now his position was known. He swung the fleet away into the fog. Soon darkness hid him.

Actually the admiral was luckier than he knew. Radio reception was bad at Dutch and the Catalina's report was almost unintelligible. The plane had been shot up and made a forced landing at sea. The pilot was picked up almost immediately by a Coast Guard auxiliary, but the skipper of the ship refused to open his radio with enemy warships in the vicinity. Three days later the protesting pilot was landed in the Pribilofs. By then the battle was over.

On the day after the first attack, storm and the threat of invasion still hung over Unalaska. Aching-eyed soldiers studied the secret of the clouds. And so did the uneasy admiral. He was very unhappy now: more Catalinas had spotted him. Then a bevy of B-26s, torpedoes tucked under their wings, dropped by. The Marauders' attack was ineffective but frightening. Where had these planes come from? Reconnaissance had not revealed any bombers.

The storm broke up, and the admiral threw his full air force at Dutch—a solid smash that left the harbor untidy. The grounded barracks ship was burned, oil supplies went up, and there were casualties. But even as Dutch took its treatment, the Jap got his final and nastiest shock. A flight of Flying Fortresses spread their wide wings over the attacking fleet. Reports on the bombing differ; Army pilots claim probable hits and Navy officials think the probables improbable. Either way, the air attack was the last straw. The Jap admiral clamped his radio shut, changed course without informing his airmen, and got the hell out of there.

Few, if any, of the planes that bombed Dutch found their way back through the fog to the silent mother ships.

Blair Does Business

Let us go back to Umnak, a month before the attack on Dutch.

The sea was heavy and there was no dock. The ropes holding the boxes for the Blair Fish Packing Company strained and creaked as the ungainly barges wallowed in the deep swell. The crews warily eyed the violent line of breakers on the black beach, listened to the waves thump and suck around the smooth, dangerous rocks, and wondered if the command would come to turn back.

The command was to land.

To land was perilous, to hit a rock was death, but the seamen laid the barges almost against the reefs. The engineers got a line through the breakers. Men were crushed and equipment lost but, incredibly, the cumbersome crates were dragged to the beach and broken open. Out of the Blair Company crates came Army engineering equipment. That night work started on the air strip.

Racing against time, struggling with wind and sleet and muskeg, stopping only for C-rations and snatches of sleep, the engineers rolled back the tundra skin. The catskinners brought up their bulldozers, fought for footing in muck, and pushed and scraped and swore and won. The cats threw their treads in the oatmeal mud, the water welled up in the ruts of the trucks, parked equipment sank out of sight. But in three weeks there were roads on Umnak, there were antiaircraft emplacements, there were buildings. Most important, there was the air strip.

Only a week before the Japs attacked, the engineers lined the runway and cheered as Major John Chennault, son of Major Clair Chennault of the Flying Tigers, brought the first squadron of P-40s down on Umnak. At almost the same time the Martin Marauders landed at a second secret base farther east —Cold Bay, just down the Peninsula from exploded Mount Katmai and the Valley of Ten Thousand Smokes.

The planes from Umnak and Cold Bay scared off the Jap

fleet. But the airmen who battled the Zeros and bombed the carriers are first to admit that to the engineers, the hairy-eared engineers who carved the fields from the tundra, belongs the main credit for repulsing the enemy.

Westward Woe

The Japanese were repulsed but not smashed. When the enemy fleet turned reluctantly west, it did not go home. Between the task force and Tokyo lay a thousand tempting miles of strategic, undefended islands.

Back in Dutch, the Americans could guess what was going on to the westward. One after the other, the little radio stations in the outer Aleutians blinked out, like candles in a williwaw. At Kiska the Navy had a handful of weather observers—a naval lieutenant and ten men—who radioed reports on meteorological conditions. Two days after the attack on Dutch, the Kiska radio crisply reported unidentified ships approaching the island. Then only silence.

Steadily the Navy operators at Dutch called Kiska. Long after they were sure that landing parties, under cover of the Jap cruisers' big guns, had wiped out the eleven-man garrison, they tapped the Kiska call letters. There was no answer.

But Dutch did hear from Atka, halfway down the Chain. There were no troops on Atka, not even meteorologists—only some Aleuts, a herd of caribou, and two teachers of the Office of Indian Affairs, Charles and Ruby Magee. The Magees, besides teaching, nursing, and serving as postmaster on the four annual mail deliveries, observed the weather and reported it to Dutch by short wave. They also relayed reports from another pair of teachers, Charles and Etta Jones, their nearest white neighbors westward—four hundred miles away on Attu, "the lonesomest spot this side of hell."

The Magees were worried about the Joneses. Charlie Jones, who knew how important his short-waved statistics were to

aviators eastward along the Chain, was always punctual with his reports. But now one was long overdue, and the Attu radio was dead. Maybe something had happened.

Without its being said, the Magees and the brass at Dutch were sure what had happened. Attu—and Charles and Etta Jones—were captured.

With Japanese warships lying unchallenged off the coast, enemy soldiers of the 301st Independent Infantry Battalion landed on Attu. There was no resistance. Of the forty-five Aleuts in Attu village, at least twelve were able-bodied men, trained hunters, and good shots, in love with their misty homeland. But they were surprised and overwhelmed.

The island was quickly overrun. Charlie Jones was killed, his wife and the Aleuts hustled off to captivity. Confined on Hokkaido, one of the Japanese home islands, they were rescued after the Jap surrender.

Where, Oh Where?

Dutch was blind.

When the enemy fleet faded into the fog, our reconnaissance lost them. From the radio silence at Kiska and Attu, G-2 knew the Japs had gone ashore in the western Aleutians. But were these landings merely raids to refurbish the admiral's damaged face, or were they occupation—the start of a campaign. If occupation, how many troops? On what islands? In which harbors? With how many ships?

Ferreting out the enemy's whereabouts was a job for planes, but few planes were available. Two skimpy squadrons of flying boats assigned to eastern Aleutian operations had flown out their motors in the battle with the fleet. Kiska and Attu were hopelessly beyond the range of the medium Marauders or the P-40 pursuits at Umnak. Only the Flying Fortresses at Cold Bay, operating at extreme range, might have made it—but not without accurate weather information. And with the

westward weather stations dead, flying conditions in the Aleutian storm cradle were anybody's guess.

For four days the few Catalinas able to get off the water bumbled around in the fog, finding nothing. But by the fifth day, a new squadron was on the scene. It operated from a tender off Atka. From that point the big blue coffins could scout the entire Chain. On June tenth three Catalinas reached Kiska and caught unhappy glances of tents on the shore and ships in the harbor. No question now, this wasn't a raid. The enemy intended to stay.

In the foggiest stretch of the Aleutians at the foggiest period of the year, the ponderous naval patrol planes fought an outlandish war, a surrealist struggle as unlikely as a Superman scenario. The Catalinas' merits are two—they can fly far and land on rough water; their demerits are three—they are slow, unresponsive, lightly armed. They are built to find, not to fight. They discovered the enemy positions on Kiska and Attu, and later on Agattu and Amchitka. But since the Catalinas were the only planes in the theater that could reach the Japs, they were drafted for combat duty.

The PBY pilots tried everything. They pretended they were jockeying P-40s and wallowed through the low clouds dog-fighting the Japs' giant Kawanishi flying boats, filling the sky with an elephantine *danse macabre*. They thundered up the narrow coves, skipping the waves like a smooth stone, to bomb the Jap transports at mast height. They hedgehopped over the basalt ridges to machine-gun the enemy encampments. They even dive-bombed, though it took two men at the controls to pull them out.

In crates as cranky as a streetcar, the Navy pilots flew the aerial gamut from fighter to Stuka to Fortress. But their improvisations were not enough. Even when Army heavies, operating at maximum distance, joined the battle they could not carry enough bombs to bounce the invaders off Kiska. The Japs were digging in. From day to day the revetments lengthened and deepened, new tents blossomed on the tundra, anti-

aircraft fire grew heavier, more and more transports stood into the harbors.

It was going to take more than bombing. Someone would have to go in after the Japs before they were set to smash out again in a new bid for Dutch.

Japan still held the ball. The enemy had more men—ten thousand on Kiska alone—more ships, more fighter planes, better weather observation. The enemy knew now about Umnak's air strip and probably about the Cold Bay bomber nest. In a new attack he could neutralize these fields. Alaska was no longer his for the asking—the price was getting higher each day—but he could still pay it. Yet for the second time the Japanese hesitated.

Perhaps the enemy was satisfied with what he already held; perhaps he had accomplished his minimum Aleutian aims. A Nipponese military spokesman, General Higuda of the Japanese Northern Army, told the home folks that the Aleutian campaign was designed to do three things: prevent American offensive use of the Chain, drive a wedge between U. S. and Soviet insular possessions, and establish air bases for future operations. The first two were already accomplished, and the Kiska and Attu garrisons were slowly carving airfields on the sides of the drowned fire mountains.

There is a more probable explanation. The Jap Navy had been badly mauled at Midway, and the Americans had opened the Solomons campaign. Again the Tokyo war lords gave first priority to the economic empire to the south, again they decided to play it safe in the north. They believed they could still wait and win. They kicked on second down, and the Americans took the ball.

Seemingly everyone went through the same old motions. The big bombers of both sides still paid courtesy calls on every clear day, the subs still lay off the coves of Kiska and Dutch, the light naval units feinted in ineffectual blockade. But the Aleutian campaign had entered a new phase. It had been turned over from the fighters to the builders.

With the Aleutians as stakes, we bet that our engineers could outbuild the Japs.

Why, Oh Why?

The Japs had a head start and a headache. In taking Kiska as the site for their main Aleutian base, they picked the worst possible terrain for building an airfield. Kiska is rugged; straight from the sea, its mountains shoot up four thousand feet. The only valleys remotely suitable for air bases are sawed by cross winds or screened by almost perpetual fog.

Why, then, had the invaders, who knew the islands better than we, selected such a sad site? It may be that it met their requirements. The harbor was good, the coves offered shelter for the flying boats and Zero floats which were the Japs' main aerial weapons for insular warfare. Their campaign plans may have called for nothing more. Or Kiska may just have been a convenient place for the admiral to unload his warriors after the scheduled seizure of Dutch went sour. The surprise base at Umnak may have caused them to shy away from wide-open Adak.

Senator Warren G. Magnusson of Washington, the Congressional authority on the Aleutians, advances a different theory, both plausible and pleasant—the Japs fouled up by crediting us with deceit we were not practicing.

In 1924, United States Army planes made a round-the-world flight. They crossed the Pacific by flying along the Aleutians, hopping over to the Commanders, then to the Kuriles and on to Japan. In preparing the way for the Army fliers, the Navy made one of its few military surveys of the Aleutian area. The naval chiefs were more interested in anchorages than air-fields, and Kiska's deep, superbly scenic harbor impressed the surveyors. On their recommendation the island and adjacent waters were set aside as a U. S. Naval Reserve. Actually, this changed nothing except the markings on official maps. Because

of apathy and our agreement not to fortify the western Aleutians, Kiska was left completely undeveloped.

But, Senator Magnusson reasons, the Japanese, who were at that time muscling up Truk and other "nonmilitary" points among their mandated islands, could not believe we were not planning something sinister on Kiska. Their fishermen-scouts found nothing when they studied the restricted island, but even so the Jap G-2 must have felt something was cooking on Kiska.

Then, after the Japanese terminated the Naval Limitations Treaty, the Navy put a weather station on the out-of-the-way rock. Japanese monitors, taking a fix on a new station operating in the Aleutians just before Pearl Harbor, pinned it down to Kiska. The Japs felt their suspicions confirmed. Kiska was the best spot west of Dutch Harbor.

So when the admiral had to improvise after his first frustrated invasion, he took Kiska and left us Adak. Which, considering everything, was more luck than we had earned.

Hush Job

The submarine surfaced quietly, a hard splinter on the moving blackness of the Bering. The men came up and stood on deck. After the Jonah hours in the ship's belly the rain-washed night air tasted good and they swallowed it in deep gulps while the rubber boat was brought up and readied. Some stared through the night at Adak. They could feel the island in the crash of breakers, smell it in the sweetness of tall grass, but they could barely see it. One man made a point of not looking at all. No one said much.

The boat was lowered and all the men stepped into it gently. They felt knots in their stomachs and sweat on their palms. The colonel gave the word and they picked up the paddles. The sub's crew watched from the deck as the landing party drew away. Though the breakers would drown the sound, the

men paddled quietly. The Alaska Scouts were going in. The reconquest of the Aleutians was under way.

The Adak invasion was no Normandy. As amphibious operations go, it was strictly bush league. The first wave was a single rubber boat, and the second wave, twenty-four hours later, another rubber boat. But the two squads of scouts who landed on the nights of August twenty-seventh and twenty-eighth were not thinking in Eisenhower terms. All their attention was on the black hulk of the island before them. They listened to the shore sounds, straining their ears for the unfamiliar, peering at the swelling outline of the cliffs. Adak was believed to be unoccupied, but Jap patrols were known to visit it frequently. Perhaps some were there now, on the slope behind the beach, waiting. . . .

Then they were in the breakers and anxiety was lost in the accustomed struggle with the surf. Sure, shallow strokes drove the rubber boats onto the beach. Silently the Scouts slipped across the black sand, past the high-water cemetery of silver driftwood, up the storm-worn bank, and out of sight in the shoulder-high grass of the valley.

For Lawrence Vincent Castner the landing was quite a moment. The Alaska Scouts (formally, the Alaska Combat Intelligence Platoon; informally, Castner's Cutthroats) were the colonel's babies. As intelligence officer for the prewar Alaska Defense Command, Castner had convinced General Buckner that ordinary G-2 methods were inadequate in a territory as vast and empty as Alaska. He proposed to train a special group for combat reconnaissance. Each man would have to be a cross between a masculine Mata Hari, a modern Commando, and an old-fashioned sourdough. He must be able to handle any weapon a soldier can carry, to live alone in a land of ice, to stay alive on an island loaded with Japs. He must be brave enough to get there, intelligent enough to understand what he saw, cool enough to get back. He must be damn good.

As charter members of the Cutthroats, Colonel Castner picked four regular Army men. Though none of them were

Alaskans—three were Westerners and one from Tennessee—all had served in the Territory. The Scouts had been training only three weeks when Pearl Harbor was bombed. Soon after, the platoon was expanded sixfold, the first of several increases.

With Alaskans rushing to the colors, Castner corralled as quaint a collection of purse-seiners, Aleuts, salmon-packers, Indians, fox-trappers, Eskimos, and prospectors as has been assembled outside a Saroyan short story. Many of the newcomers were professional hunters. They had teetthed on firearms, learned to toddle on snowshoes, and stalked everything from coots to Kodiak bears. One of the Eskimos had harpooned his whale; a white trapper had killed a cougar with a knife. As civilians they were better scouts than the Army could create in years of training. About all Castner had to do was teach them what was wanted.

The Scouts did not operate as a platoon. The men were scattered throughout the Territory, most of them in the Bering-Aleutian area. During the attack on Dutch they distinguished themselves as uncannily accurate observers. They helped evacuate the unhappy Aleuts when the government decided to move all the natives from the Aleutians and the Pribilofs to Admiralty Island. They drew the job of slipping ashore on westward islands to see what the Japs were doing and to glean data about base sites. Now, just nine months after the platoon's conception, it led the landing on Adak.

With Castner in personal command, the reconnaissance parties spent two tense days studying the beaches and probing the interior to make certain Adak was still untenanted. It was—but not for long. On the night of the thirtieth the Scouts were back on the beach. Out on the dark water a light blinked a brief message, and from the shore the Scouts gave the signal: all clear, come on in.

A strange flotilla approached Adak: a fleet of scows, yachts, catfish schooners, barges, tugs, and purse-seiners. Alaska was not a high-priority theater, and the Army and Navy took what they could get in the way of transport.

The sea was rough, the landing difficult. But with the Scouts blinking directions from the shore and walkie-talkies briefly breaking radio silence, they made it. Infantry went in first, then the engineers. Some of the men had made the Umnak landing five months earlier. These veterans studied the waves with nasty nonchalance and assured their tyro companions, "This is nothin'. You shoulda been around when things were really rough."

Rush Job

"I think," said the visiting dignitary, "that it would be no exaggeration to say that you have accomplished a minor miracle here on Adak."

"Hell, Congressman," said the Seabee, "what's so minor about it?"

The construction job at Adak was the most satisfactory single performance of the Aleutian campaign. While 275 miles away ten thousand Japs were slowly chiselling a single runway down a Kiska valley, the machine-minded Americans changed the geography of an entire island. Quite literally, they moved mountains. Docks and roads and airfields and hospitals and warehouses and gun emplacements appeared almost overnight; lakes and hills and harbor islets disappeared.

The engineers were ingenious. In a report to Congress on the Aleutian area, Senator Magnusson casually revealed one secret of Adak's great airfield. "It is a unique one with a very long runway," the Congressman said. "Its construction was accomplished by a bright young engineer who discovered a lagoon with a narrow entrance from the sea. The engineers merely drained the lagoon by building a dam at the entrance. They drain the water in or out at will, leaving a fine, hard-surfaced airfield."

On September fourteenth, only two weeks after the landing, a force of Fortresses and Liberators baptized the Adak air

strip, rising from it to give Kiska its first really adequate bombing. After that they called regularly.

And while the Army was setting up its establishment for heavy bombers, the Seabees built a naval base. "One can only appreciate what the Seabees have done," Congressman Magnusson said of their first ten months' work, "by visual observation. They have gone out on those barren wastes, pitched tents and, starting from scratch in the sleet, slush, rain, cold, and snow, have built some of the finest airfields, air facilities, piers, and similar installations that exist anywhere in any advanced base in the world. They can do anything and build anything and are willing to do so at a moment's notice. Their activities range from driving cats and bulldozers, mending furniture in a nurses' home, stevedoring on ships, digging pits, graveling roads, exploring for wild game and fish, to interior decorating in the officers' offices. They have drained a small lake and provided a fleet anchorage which will take care of anything we will ever use in the Aleutians. They have just about completed a Navy airfield. They have built roadways and all the other things necessary for this vast naval facility, all in the period of ten months, starting from scratch."

Meanwhile, the Alaska Scouts had picked out some more real estate suitable for development.

Unopposed Landing

Amchitka is a long, hilly island with an outline something like a gravy boat. Before the war it was important as the site of the largest remaining sea-otter rookery. After the war began it was even more important because it lies only seventy-five miles from Kiska. Early in 1943 we occupied Amchitka.

The landing was unopposed. It was probably the toughest unopposed landing made during the war, certainly the worst of the Aleutian campaign. A lot of men were lost in that landing, and those who made shore put in months of wet, cold, back-

breaking misery. The documentary film, *Report on the Aleutians*, which was filmed on Amchitka, gives an idea—but only an idea.

On the night of January twelfth the weather was not what had been predicted. It was what Alaskans call “big,” a heavy swell and rising wind that tore the top from the waves and hit the shore behind a screen of cutting spray. It was no weather for rubber boats, but a handful of Scouts and a hand-picked group of infantry volunteers paddled ashore at the eastern tip of the island, made certain the harbor was not hostile, and on the thirteenth directed the start of the landing operations. The weather was bigger than ever. A huge wave dropped a destroyer on a reef, splitting it evenly up the middle. The landing boats pitched horribly and soldiers were violently sick. But they splashed ashore, staggered across the dreary beach, and either lay on the snow, retching, or began to dig in. For the next four months, that is what they did most—dig.

Even without enemy airmen a quarter hour away, Amchitka in January is no picnic ground. The mere problem of existence is almost overwhelming without the additional complications of air raids, patrolling against raiding parties, and building an airfield. Water had to be thawed from frozen ponds, tents anchored against the hundred-mile-an-hour blast of the williwaws, clothing dried, fuel oil hauled for fires. In a land where the wind blows in all directions almost simultaneously, not even urination is simple; constipation can be a blessing.

In a way the bad weather was helpful. The storms kept the Jap reconnaissance planes grounded. By the time the enemy raiders came over, the landing party was well dug in. Some were dug in too well—soldiers who had sunk foxholes into the muskeg sometimes smothered when bombs burst near them; more men drowned in the muck than were killed by blast or metal.

When the thaws came the men longed for the snows they had so recently cursed. After the cats and trucks and scuffing feet broke the tundra skin, Amchitka was all muskeg—soft,

sticky, sour-smelling mud. The mud was worse than the Zeros, worse than the continual diet of C-rations, worse than anything. Enterprising GIs collected enough wood to build boardwalks from their tents to the mess. And during the night even more enterprising GIs transported the entire walk to a new location.

Fights over "salvage" were frequent, matter-of-fact, and not bitter. A man who found something worth "requisitioning" would collect enough buddies to convoy it safely back to his area. A lone soldier had little chance of reaching home with choice salvage.

But somehow the base was built, the docks were put in, the airfield scraped and surfaced. By March, there was two-way air traffic between Kiska and Amchitka.

Hide and Sink

"If the Japs had a navy up here," the sailor said sourly, "we would sink it. If we had a navy."

With the Solomons campaign draining the naval pool and the North African invasion convoys accumulating in Atlantic ports, there was little fleet strength left over for the Aleutians in 1942. Both sides said it with subs and destroyers. Like two good boxers without much punch, the rival navies sparred and feinted, making all the intricate threats of blockade and counter-blockade but seldom landing a solid punch.

What successes there were, the Americans enjoyed. One of our subs threaded the nets and, lying calmly in the wide Kiska harbor, plunked torpedoes into a trio of destroyers. A cruiser task force came north and gave the Kiska tenants a troubled half hour of heavy shelling. Other subs, working the waters between Kiska and Attu, destroyed some more destroyers. But the Jap supply line was a long way from breaking. At that time they had more merchantmen to spare than we.

We were desperately short of ships. To help solve the ship-

ping problem, the Alcan was being cut through the Canadian wilderness. At Excursion Inlet, back on the mainland below Juneau, the Army was building a seventeen-million-dollar shipping center to serve as a trans-shipment point for supplies in the Aleutian campaign. Goods were to be shipped north by barge, along the sheltered Inland Waterway, stored at Excursion Inlet, then sent on out to the embattled islands by sea-going ships. Before the base was ready, the last Jap on Attu was dead, the last one on Kiska had fled.

The enemy tagged some of our ships, and others met disaster in storms and fog. Aleutian GIs still lament the sad fate of the *Scotia*, a converted lumber carrier that broke loose from her moorings in a Christmas Eve williwaw, scraped a slice off her bottom on a rock, and sank a week later—hundreds of cases of holiday beer still in her hold. The Japanese blockade was less effective than ours. Most of our ships got through. Slowly but steadily the trickle of cargo expanded, and by spring of 1943 the stevedores on Seattle docks were sure something big was going to happen Up There; an awful lot of stuff was being poured into the Chain. The stevedores knew in their aching backs that the invasion build-up had begun.

Tokyo knew it, too. As the days lengthened and the snow line moved back from the beaches of Attu and Kiska, the Japs braced themselves. They assembled a big supply convoy, assigned four cruisers—two light and two heavy—and some destroyers to protect it, and dispatched them to Attu.

Attu needed those supplies. Some strange things had been going on on the westernmost island since the 301st Independent Infantry Battalion had overwhelmed Mr. and Mrs. Jones and the forty Aleuts. The invaders established a camp at Holtz Bay and dug in. Then, unexpectedly, the entire garrison was switched to Kiska, and Attu was left temporarily unguarded. Our Naval Intelligence spotted the move, but with commitments elsewhere the Navy did not feel it could guarantee the supply line if a task force were sent in. Before we could act, more Jap troops were back on the island.

The new Japs were garrison troops, builders rather than fighters. They industriously began to burrow machine-gun nests into the mountains and to build the inevitable air strip. But they needed reinforcements and more supplies if they were to repel an invasion. Those were the supplies on the ships guarded by the cruiser task force.

The Jap convoy sought the safest possible route, a looping course up north of the Soviet-owned Commander Islands, then east to Attu. But between Bering Island and Attu, by guess or by God, waited American raiders—four destroyers, the light cruiser *Richmond*, the heavy cruiser *Salt Lake City*, a creaking old gal sometimes saluted as the *Swayback Maru*. She was the heaviest U. S. ship to be in the area since the quickie bombardment of Kiska half a year before.

The American ships were outnumbered and outgunned more than two-to-one, but their job was to keep supplies from reaching the Aleutian Japs. They bulled in toward the transports and at twenty-five thousand feet joined battle with the escorting cruisers. There followed a swirling, three-hour slugfest, fought partly from behind smoke screens. The American ships stopped a lot of reconverted scrap iron. The destroyer *Monaghan* was badly messed up while attempting a torpedo attack; the aged *Swayback Maru* was slowed down to a row. But the Japs had it worse. A series of square hits from the eight-inchers mauled their mainship; a light cruiser got cuffed around in a duel with one of our destroyers, and the enemy transports decided it was time to show their screws. The Americans were too badly battered to pursue, but it did not really matter. Out on Attu the Jap garrison waited for ships that never came in.

"All This and Attu"

It is unlikely that the invasion of Attu will be studied by future militarists as the example of a perfectly programmed campaign. Operations were strictly off the cuff; from long before the moment in May when Battery C of the 48th Field Artillery

sent the first shell screaming up Massacre Valley, the situation was more than normally fouled up.

To make the invasion the Army brass picked the Seventh Division, then in training as a motorized desert outfit near San Luis Obispo, California. When in December of 1942 the men of the Seventh heard rumors they might be shipped, they thought of North Africa. Then the Seventh moved to Fort Ord and practiced—although without full equipment—amphibious landings. The hot poop of the rumor mongers became, "Southwest Pacific for us, fellows." But when the convoy sailed from San Francisco on April twenty-fourth, the ships turned north. In Cold Bay, not far from the Valley of Ten Thousand Smokes on the Alaska Peninsula, the men stared at the snow mountains and then at each other. "This," they agreed, "ain't Guadalcanal."

Alaska veterans who saw the California-trained contingent at Cold Bay immediately pointed out faults in its equipment: the clothes were not warm enough, the boots not dry enough. Last-minute efforts were made to get adequate Aleutian clothing, but there was far from enough for a full division.

D-Day was set for May seventh. But a three-day storm held the convoy in Cold Bay and the schedule was set back by twenty-four hours. This was not the first change in plans. Originally the idea had been to throw the Seventh against Kiska, an undertaking which might have proved disastrous. Fortunately in March some strategist had convinced his confreres that it would be better to choke Kiska into submission by taking Attu and cutting off supplies. The switch saved many lives.

On May fourth, covered by the biggest collection of warships yet assembled in the North Pacific—a task force including battleships and an aircraft carrier, the troopships sailed for Attu. The sea was rough, the ships crowded, and the men noisy with the cocky tenseness of untried troops. They gambolled and gambled, made certain their rifles were clean and their stories dirty, saw movies and listened to the radio. What they heard on the radio did not please them. The news reporter said

that "Happy" Chandler, the smiling Senator from Kentucky, had harrumphed in Congress that the Aleutian theater was being neglected. He demanded immediate action. The men en route to Attu wanted nothing more than for the Japs to think the theater was overlooked by Americans, even including Congressmen.

The enemy knew better, of course. Japanese reconnaissance picked up the American flotilla, and the Kiska radio rattled out warnings to the commander on Attu. The alerted Japs grabbed their guns and manned their foxholes. On D-Day, May eighth, the enemy was ready and waiting. But the Americans did not land. Nor did they come on the ninth, nor the tenth. The Attu Japs decided it was all a false alarm. They left their battle positions and went back to the routine of garrison duty.

It was not the Japs' readiness which had delayed our landing. For once the weatherman had done right by Americans in the Aleutians. When the ships had first arrived off Attu, the ocean was rough and the shore hidden by a driving fog. The command decided to postpone the landings until favorable weather. The convoy sailed north into the Bering and while the enemy waited and wondered, the ships sailed in circles on a stormy cruise to nowhere. For three days the troops sweated out the tempest. Rumors swept over the ships: thousands of Jap reinforcements had landed, the escort ships were battling the entire Jap Navy, a fleet of Nip subs had been intercepted, someone had discovered the enemy had a new type of gas, the landing was to be made on a different island.

But during the night of May tenth-eleventh, the convoy returned to Attu. The Higgins boats were readied, the cooks prepared a hot battle breakfast, the chaplains did their chores. There was one final delay. A cotton-thick fog covered the shore; three times H-Hour was moved back. On the ships the men checked for the hundredth time their clean-oiled rifles, the officers went over again and again the aerial photos of the expected battlefields.

Attu is an amoeba-shaped island, all mountain and about forty miles long by twenty wide. Its shores are dented by numerous inlets, the most navigable of which are Holtz Bay, Chichagof Harbor, and Massacre Bay, all on the northeast coast. The Japs were dug in at the adjoining harbors of Holtz and Chichagof. The American plan was to land troops above and below the twin enemy encampments. One force was to go in on the north shore of Holtz Bay and push southeast. The second and larger force was to land in Massacre Bay and proceed northwest to a juncture with the Holtz Bay troops. Together they would swing east into the Chichagof Harbor area to wipe out the remaining Japs.

The Holtz Bay operation was the most ticklish. Red Beach, where the landing was to be made, was only three miles from the main enemy encampment. Further, it was not adequately charted. Although Attu had been an American possession for more than seventy years, we had no detailed maps of the island. Aerial reconnaissance had indicated Red Beach was difficult but not impossible for landing craft. Someone had to go in early and make sure. The job fell to the Alaska Scouts.

At eight-thirty the Scouts and Company A of the 17th Infantry Regiment, which had taken commando training, climbed into the Higgins boats. At nine-fifteen the landing craft were lowered and eleven minutes later broke away from the convoy and disappeared shoreward in the fog. A destroyer escorted the Higgins boats to within two miles of the beach and stood by to wait. The boats with Company A aboard waited too. The Scouts went on alone, a strange little group of men, mostly Alaskans, with nicknames that smacked of Gold Rush days—Bad Whiskey Red, Quicksilver, Bucko, Trader Joe, Eagle Eye and Aleut Pete.

A thousand yards from the still fog-hidden shore the Scouts left the Higgins boat. Stiff from the cold ride, they clambered into plastic whaleboats and with muffled oars rowed on in. The fog was so thick the helmsman steered by compass until, a quarter mile from Red Beach, the first rocks came into sight.

After that, they twisted carefully through the tortuous channel. They saw land, at first dim and hazy, then with each stroke sharper and closer until the grass on the hill stood out; it was still yellow after a winter under the snow.

The gray boats grated on the shingle beach, and the Scouts raced for the cover of the bluff. There were no shots. Red was a bad beach—narrow, shallow, difficult to approach from the sea, flanked by three-hundred-foot hills; but it had the major virtue of being undefended. The Japs had not expected a landing at such an unpromising spot. It was their worst mistake.

The Scouts radioed back that the beach was clear. The men from Company A came in, set out red and black floats to guide the later barges through the rocks, and prepared to defend the beachhead. Shortly after two P.M. the signal came for the major part of the northern force to go ashore. The big guns of the warships laid down a brief covering barrage and the Higgins boats threaded the buoyed channels, scraped up to the beach, and dropped their landing ramps. The heavily laden fighters ran ashore, unopposed. Red Beach was secure.

Meanwhile, seven miles to the south, the main American force was groping through the fog toward Blue and Yellow Beaches in ominously named Massacre Valley. The men did not like that word, "Massacre." Though they had been told the valley was named for what an invading force of Russians had done to the defending Aleuts, it seemed inviting trouble to land at a point called Massacre.

Nor did the sight of the valley make anyone happy. Though to tourists the flanking mountains might be beautiful, the rocky slopes, the treeless tundra, the dirty white of old snow, offered no satisfaction to invaders. Massacre looked mean. The mountains to the left of the landing force rose over fifteen hundred feet, the mountains to the right over two thousand. The low land of the valley was marshy. Up the center of Massacre ran a humpbacked ridge, soon called the Hogback; it offered firm footing but no cover; if there were Japs in

the mountains, anyone moving up the Hogback would be as exposed as a shooting-gallery pigeon.

The landing was confused. Boats got lost in the fog and men came ashore at the wrong beaches or, after circling in the mist, arrived late. No one was experienced with the problems of unloading and distributing the heavy equipment. Disorganization was general—and the confusion was not all on our side. Four Japs, manning a battery overlooking the landing site, ran away without firing a shot, a fortuitous desertion that saved many more than their own four lives.

Once ashore, the Americans advanced cautiously up the valley. Their objective was Jarmin Pass between Black Mountain and Cold Mountain at the head of Massacre Valley. Breaching the Pass would bring the southern force out into O'Donnell Valley, southwest of Holtz Bay and in a position to drive between the enemy camps at Holtz and Chichagof. The timetable tentatively called for the break-through at Jarmin on the second day of the invasion. It couldn't be done.

The Japs were outnumbered more than five-to-one, but they had every other advantage. They held the high ground, they were dug into prepared positions in the rocks, they knew the land, they were dressed for the climate. Worst of all, the Americans' mechanization broke down in the mud. The invasion was made during the spring thaw, and the ground was so soft it sagged under the weight of a man. The tires of transport and artillery broke through the thin skin of tundra. Trucks and weapons rested on their undercarriages, their wheels spinning helplessly in the mud. The 105s bogged down less than a hundred yards from the beach; the trucks sometimes got twice as far. Supplies unloaded on the muskeg sank out of sight before they could be rehandled. Tanks were out of the question; and though the Americans controlled the air, the planes could give little tactical support to the fogged-in infantry. Everything depended on the foot soldiers, untried troops fighting a type of war they had not been trained for.

At first the Japs retreated. The early fighting was a series of patrol skirmishes, each following the same pattern: a few shots at long range, then the Japs scurried back up the hills and out of sight in the fog clinging to the mountaintops. The enemy sold the marshy lowlands cheaply but resisted sternly from the mountaintops. On Henderson Ridge to the left and Gilbert Ridge to the right, the patrols, after clearing the approaches, were pinned down on the mountainsides by machine-gun fire.

On the floor of Massacre Valley the advance continued. A wavering line of brave, frightened men walked slowly ahead over the uneven tundra, stumbling when they kept their eyes on the distance where the enemy lay hidden, afraid of the unknown ahead when they bowed their heads to look for solid footing. Occasionally a burst of fire from snipers concealed on high ground held up the advance; but through most of the long, gray spring afternoon the men plodded forward. When they were less than half a mile from Jarmin Pass, the Japs sprung their trap. From straight ahead up the funnel of the pass, from the heights of Cold Mountain on the right and Black Mountain on the left, from the flanking mountains of Henderson Ridge and Gilbert Ridge, the enemy poured machine-gun, rifle, and mortar fire. The Japs had the ranges perfectly plotted, visibility into the valley was excellent, and their own concealment in the mist was advantageous. The advance shuddered to a halt. From the beaches, where the American big guns were still floundering in the quagmire, the artillery slammed shells up into the fog; then the foot soldiers rushed the pass again. And again they were thrown back. It was too late for a third charge, and the infantry dug in for the night. A night of pure hell.

That night, and every night during the campaign, the GIs paid for the mistake that the brass had made in equipping the expedition; the price in pain was especially high for the boots. The boots were the calf-high blucher type commonly called loggers. Well-made, expensive, and comfortable, they

were not waterproof; they were designed for wear by men who could take them off and dry them out nights. The men in the foxholes of Attu had no chance to dry out; during the day their feet were watersoaked in the soggy tundra, and at night, in a hole dug in wet mud, with the temperature falling toward freezing, their feet chilled and froze, or they developed trench foot. For those who had fought their way up to the snow fields, the nights were even worse. We lost more men to the weather than to enemy action.

On the morning of the twelfth the men were ready to attack, but the supply situation was so snarled that many units were short of ammunition. With the trucks stuck, boxes had to be pulled along the stream beds by cats, then hauled on men's backs. Much matériel was lost in the muskeg. Some was sunk. But by midafternoon the fellows up front had enough ammunition to try again at Jarmin. They didn't make it. For five days, with more stubbornness than success, the soldiers charged the fixed positions. Never did they come close, and their losses were serious. Colonel Edward Earle, commanding officer of the 17th Infantry, was shot dead on a scouting trip, the battalions of the line were badly mauled and near physical exhaustion from fighting by day and freezing by night. The Jap position seemed impregnable.

Major General Albert Brown called in the reserves who had been left aboard ship and, in addition, sent an appeal for the Alaska Department's reserve troops on Adak. The AD veterans were sent—but among the new soldiers assigned to Attu was Major General Eugene Landrum, former commander at Adak, who on May seventeenth took over from General Brown. The following day the first battalion of the Fourth Infantry from Adak arrived to aid in the assault on Jarmin Pass. They came too late. The Japs already had abandoned their mountain line.

The enemy withdrawal was made not because of the threat of the American reinforcements in Massacre Valley, but because of a new danger to their rear. The northern force that landed at Red Beach had captured Holtz Bay and was moving

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up behind the Jarmin Pass garrison. The Jap commander ordered his troops to fall back before they were cut off. On May eighteenth patrols of the northern and southern forces met, sealing the enemy in the Chichagof Harbor area.

Because of the surprise of their landing beach, the northern force had not bumped into fixed defenses as formidable as the Massacre line. But the advance was no Hollywood parade. Caught in a deep ravine, one company was pinned down for fourteen hours and lost nearly half its men; more were put out of action with frozen hands as a result of lying motionless in the shallow foxholes than were wounded.

The main fighting centered on Hill X, a height about half-way between Red Beach and the main Japanese camp and supply area. Hill X was captured after two days of hand-to-hand fighting. From it, the Americans worked along the ridges until they had nearly enveloped the camp below. Here the situation was the reverse of that in Massacre Valley: the Americans held the mountaintops and from them sent artillery and machine-gun fire plunging into the enemy area. Shortly before one A.M. on the seventeenth, the Americans opened an assault to complete the encirclement. They took their objective, Moore Ridge, without casualties; earlier in the night the Japs had sneaked out of camp and retreated, in good order and with a minimum of loss for such an action, to new positions. But they left nearly all their supplies behind. Their situation was desperate.

When dawn broke on the seventeenth, the Americans descended into the valley. There were few booby traps, and souvenir hunters had a field day. So did the cooks, who supplemented Spam with the Japs' fish and rice. For the first time since the reconquest of the island started, the GIs grinned as they repeated the prime pun of the invasion, "All this and Attu."

But though the Japs' loss of their Holtz supplies and the junction of the northern and southern forces virtually assured victory, it did not end the campaign. There were about fifteen

hundred Japanese troops holed up in the Chichagof Harbor area. They had to be harried and chevied along the valleys, then blasted from caves with grenades, pried from foxholes with bayonets. It was dirty, bloody work and it took time and lives.

Although the juncture had been made, General Landrum continued to use the two forces separately. They alternated in piston blows at the flanks of the Jap position. The enemy, pinned back against the sea, had the northern force moving along Prendergast Ridge and Fish Hook Ridge to his right, the southern force driving across Sarana Valley and up Vanderlaan Peak on his left.

The southern piston was first to strike. Although the capture of Jarmin Pass opened the way from Massacre to Holtz Bay, the pass leading from Massacre toward Chichagof was still in enemy hands. This pass—Clevesy—is dominated by Point Able, a natural fortress at the eastern end of the ridge along the north side of the valley. Steep and rocky, Point Able rises eighteen hundred feet above the pass it guards.

On May nineteenth, the American assault broke through Clevesy and the troops spilled out into Sarana Valley. But when they tried to cross the valley toward Chichagof, they were machine-gunned from the rear. Artillery was directed against by-passed Point Able, but the rocky redoubt was carefully prepared against just such action. There was nothing to do but storm the height.

Frontal assaults on the fortress proved suicidal. The Japs merely stayed under cover until the barrage lifted; then, when the Americans' guns had to stop firing for fear of hitting their own men, the Japs rolled hand grenades over the edge of the cliff. For two days men struggled and died on the bare rock ridges and snow-filled ruts of the mountainside without a single soldier gaining the top. But before dawn on the twenty-first, a group of GIs climbed the cliff while a hundred others worked along the top of the ridge behind Point Able. An hour before daybreak the two forces attacked. The Japs died to a man,

and when the sun broke through the morning fog, Point Able was in American hands.

Below, the advance was resumed across the valley.

All during the next week the pattern was the same. Under cover of increasing concentrations of artillery, the infantry pushed forward. The northern force took Prendergast Ridge, Fish Hook Ridge and, finally, Buffalo Ridge. The southern force captured Sarana Nose and Vanderlaan Peak, blocking a possible Jap route of retreat into Klebnikoff Point. By May twenty-eighth the end was in sight—but no one foresaw the dramatic shape the final act would take.

In Tokyo the war lords had written off Attu. After two futile attempts to help the garrison by long-range bombing missions from the Kuriles, they sent no help to the beleaguered garrison. The Jap commander on Attu was left on his own. Pocketed, with two thirds of his troops dead and the rest starving, sick, and groggy from steady shelling and bombing, Colonel Yasuyo Yamasaki decided on an all-or-nothing-at-all gamble. He would counterattack.

There was method in the Colonel's madness. Though the odds were long against him, he knew he had no chance at all if he continued to fight defensively. So he ordered the seriously wounded to be killed, the walking wounded to be armed, and the entire garrison to join in a night attack. The objective was Massacre Valley. The enemy commander apparently hoped to break through to the American heavy artillery, turn it on the Massacre Bay supply dumps, and by destroying the American matériel, force a withdrawal from the island.

The Japs came uncomfortably close to reaching the guns. At the moment Colonel Yamasaki was deciding to counterattack, General Landrum was deciding on plans for a final assault on the Chichagof redoubt. The American reserve troops were climbing ridges to be in position for the ultimate offense; the Jap troops were hearing the reading of the Imperial Edict preparatory to a suicide attack. While the Americans on the heights tried to get some rest before the next day's dirty work

began, the Japanese left their smashed base and moved through the dark into Jim Fish Valley.

At three in the morning the enemy attacked. Because the American reserves had been brought forward to join in the final offensive, only one company of infantry lay directly between the Japs and Massacre Valley. This company was dead tired. The men had gone on a long, futile march because of mixed orders; most of the GIs were in their sleeping bags. They didn't have a chance. The Japs bayoneted them in their bags, then ran on. They broke into a command post and killed the colonel. They ran through a hospital area tossing grenades into the tents and shooting at anyone who moved. And still they swept on. They stormed across Sarana Valley and up the slopes of a low hill guarding the approaches to Point Able and Clevesy Pass. The hill was occupied by engineers and service troops—cooks and catskinners and code clerks, men whose forte was not fighting. But there on the hill below Point Able, the Japanese wave spent itself. The embattled engineers broke the Jap counterattack. What had started as a planned operation degenerated into a desperate game of blindman's buff as the enemies groped for each other in almost total darkness.

The Japs' last chance was gone. A few got through Clevesy Pass but they were shot down as they ran toward the gun emplacements. When day broke Colonel Yamasaki's survivors staged a strange spectacle. Americans, whose aim was to win a battle and stay alive, watched in amazement as the remnants of the Jap garrison, who wanted very much to die in battle, pulled the pins of their grenades and pressed death against their stomachs. The explosions were muffled.

On the afternoon of the twenty-eighth, the Americans occupied Chichagof. The next day they wiped out a few remaining pockets. Except for hunting down the handful of Japs who had escaped into the high hills, the job was done. On the thirtieth the Japanese High Command's communiqué conceded defeat:

"The Japanese garrison on the island of Attu has been conducting a bloody battle with a small number of troops against a numerically far superior enemy under many difficulties, and on the night of May twenty-ninth carried out an heroic assault against the main body of enemy invaders with the determination to inflict a final blow on them and display the true spirit of the Imperial Army.

"Since then there has been no communication from the Japanese forces on the island and it is now estimated that the entire Japanese force has preferred death to dishonor. . . ."

Attu was again American. Only Kiska was left.

Janfu

Each day the bomb loads grew bigger. The Eleventh Air Force's veterans on Amchitka and Adak, men who had a nickname for every ack-ack battery on Kiska and "worried" about "old friends below" when some gun failed to fire at them, were joined by newcomers from other theaters. It was no longer a private war in the Aleutian air. Everyone along the Chain—from private to general—knew what was coming. All this aerial build-up could mean but one thing: the invasion of Kiska.

The command was determined not to repeat the mistakes of Attu. New clothing was ordered—field jackets with bigger pockets, boots with leather tops but rubber feet. The troops were brought to the Aleutians in time to condition themselves under campaign conditions on the tundra. Landings were practiced with full equipment.

The Navy marshalled ships for the invasion flotilla and patrolled the waters between Kiska and the Kuriles in hopes of intercepting reinforcements. Only once did they see anything. A naval patrol plane spotted four small Jap ships north of Attu and whistled up some Liberators and Mitchells. The bombers sank one ship and hit two others; the fourth escaped south. Those were the last enemy cargo ships seen in the area.

But during the night of July twenty-sixth observers on the blockading warships thought they detected vessels moving through the fog close to Kiska. The American patrol vessels opened fire, but there were no answering shots. When the fog lifted the next day the sea was clear. At the time no one attached much importance to the incident.

Then the airmen began to bring back queer reports from Kiska. Antiaircraft fire fell off sharply. Barges were missing from the waterfront. The Kiska radio blinked out and did not come back on the air. Photos showed trucks parked in the same spot day after day. Naval bombardment failed to draw answering fire. Pilots flew along the airfield only a yard off the runway without seeing a sign of activity. Barracks were burned down at points where no bombs had fallen; it all added up to evacuation.

But there had been ten thousand Japs on Kiska and the Navy had not observed any blockade runners. The brass feared a trap. They ordered the original plans carried out.

On Friday, August thirteenth, the troops embarked. There were mountain fighters from the States, a contingent of conscriptees from Canada, a smattering of veterans from Attu. Again the plan was for split landings—a northern force to land at Broad Beach, a southern force to go in at Quisling Cove. The landings were to be a double-reverse in diversion: while the first force was landing in the south on Sunday, the transports carrying the northern force were to appear off Gertrude Cove on the other side of the island to distract the Japs' attention; then when the enemy discovered the troops ashore at Quisling Cove, the northern force would land. The only trouble with the plan was that on Sunday morning Kiska was so fog-coated, the Japs wouldn't have been able to see the *Queen Mary* had she called.

While the rest of the southern force toyed with an invasion breakfast of steaks and soft-boiled eggs and the chaplains read prayers over the loud-speaker systems, squads of Alaska Scouts made their reconnaissance runs in rubber boats. First ashore

on Kiska was a native Alaskan, Sergeant Clyde Peterson, a former Sitka fisherman. With him were three other Alaskans, one of them an Eskimo. Peterson's party found the beach deserted. In the cliffs behind the shore they came on the first of the Japs' Kiska caves—deep-dug machine-gun pits governing the entire sweep of the landing beach. From them a handful of men could have stood off hundreds, but the caves were deserted.

More Scouts came ashore, towing a tipsy boat loaded with three thousand pounds of high explosives. They placed the charges along the approaches to the landing site and, exactly on schedule, blasted a channel for the barges. In the foggy dawn infantry and engineers landed. Some pressed inland, others labored on the beaches. And back from the misty mountains filtered the Kiska refrain: "Objective reached. No contact with the enemy."

Patrols reached Middle Pass: no contact. Patrols looked down on deserted Gertrude Cove, the Japanese Army base: no contact. Patrols approached Kiska Harbor, the enemy's naval base: no contact. The northern force landed at Broad Beach: no contact.

And then, suddenly, there was contact: reconnaissance parties from the southern force met patrols from the northern force. They mistook each other in the fog and there was a brief battle. Several were killed before both sides learned they were not firing at Japs. But after that everyone knew: the invasion was just a dry run—the Japs had taken a powder.

The first reaction was frustration. Primed for a fight, the soldiers were disappointed in not getting it. The fears, the doubts, the wonder of how one would behave under fire, the challenge, the eagerness—all for nothing. How would it sound to tell your grandchildren about invading an empty island? What would the girl back home say? "Three months and three thousand miles, just for maneuvers," the soldiers complained. They sought a scapegoat. Army men blamed the Navy; Navy men blamed the Army. But soon they settled on the word

"Janfu." In the GI lexicon, "Snafu" stands for "Situation Normal, All Fouled Up." The comparative is "Tarfū"—"Things Are Really Fouled Up." The superlative, "Fubar," is short for "Fouled Up Beyond All Recognition." And "Janfu," the Kiska special, was simply "Joint Army Navy Foul Up."

Gradually the resentment wore off. As the men looked at the gun emplacements, explored the miles of caves burrowed into the rocky cliffs, estimated the casualties it would have cost to take the key points, they began to be glad the Japs had run away. They took consolation in the idea that their might had been impressive enough to make the enemy abandon a powerful stronghold without firing a shot. They laughed at the big sign at the naval base, "We shall come again and kill out separately Yanki Joker." They wondered at the chivalrous gesture of a neat grave not far from a wrecked P-40 over which was the epitaph, "Sleeping here, a brave hero who lost youth and happiness for his motherland. July 25."

And bit by bit Intelligence assembled the clues to the mystery of the missing garrison. Apparently the decision to abandon Kiska had been made shortly after the fall of Attu. The evacuation had been delayed, either because the Japs wanted to keep U. S. troops tied up until the last possible moment, or because no opportunity for escape presented itself. Dribbles of key personnel were probably removed by submarine during June and July, but the main body left the island on the foggy night of July twenty-eighth. They put to sea in the landing barges for a rendezvous with either subs or surface ships—probably the convoy the American patrol had brushed in the dark two days before the landing. The few troops left to carry out demolition must have slipped away by submarine as the invasion armada approached.

In their first planned withdrawal, the Japs got an "A" for stealth but no better than "D" for demolition. The invaders were amazed to find coastal batteries intact, supplies of ammunition unblasted, piles of special Aleutian clothing (some with collars of invaluable sea-otter fur) uncontaminated.

But though much matériel was undamaged, much was also mined. On Attu there had been few booby traps; souvenir hunters met disaster only when they toyed with dud grenades. But on Kiska a GI who picked up anything from a samurai sword to a pornographic postcard was in danger of quick death. Consequently the troops scouring South Head were cautious when they found a heavy book lying in an abandoned anti-aircraft emplacement. But finally someone picked it up. It was *Gone With the Wind*.

Stuck in the Mud

The letdown was terrific.

Kiska had been the goal of all the effort that had been poured into the Aleutians. Somehow the presence of the enemy on that island had seemed a personal insult to every soldier in the Alaskan theater. Then the Japanese ran away, and though the spotlight of attention at once swung southeast to Paramushiro, the Kuriles were not an adequate emotional substitute for Kiska.

The Kuriles would have to be taken sometime, sure; everyone felt that. But they were just names on a map; there was nothing personal about them. Besides, the soldiers felt it would take a long time to build the Aleutian steppingstones into a bridge to victory. The GIs sadly settled down to garrisoning the lonely isles.

Like love to Gravel Gertie, American civilization came to the Aleutians. Huts and movies and post exchanges and boardwalks and radio stations and even a few flush toilets blossomed on the tundra. A few months after the capture of Kiska, a GI could take a steam bath on Attu, send a commercial telegram home from Shemya, spend a quiet evening in a library on Adak, play bridge with a USO girl at the service club on Umnak. But a man can get mighty lonely playing bridge, seeing movies, sending wires, and taking steam baths. The Army set two years as the average time a soldier must spend in Alaska

before being rotated to another theater, and as the GIs put it, "Two years add up to a lot more than 730 days."

Most Aleutian troops live in Pacific huts. The Pacific hut is a prefabricated plywood-and-plastic igloo, thirty-six feet long, sixteen feet wide, nine feet high at the top of its curved roof. Standing on the tundra, the tubular huts look like misplaced pieces of tunnel. They are shipped in segments and an experienced crew can assemble one in eight hours. The bulk-heads at each end of the tubes have two windows and a door; a special ventilator runs the full length of the roof crown and a tin chimney with a special windcap sticks out of the exact center of the roof. The huts are heated by large oil stoves.

Besides the Pacifics, there are also Quonset huts—very similar, but made of metal and a little larger. There are also tents. Strangely, the tent troops swear by their canvas quarters. The permanent tents are so deeply dug in and so firmly anchored that the williwaws no longer sail them away to the next island. Their main advantage is that they hold less men than the huts, and in Aleutian living the smaller the number, the greater the harmony. A Quonset houses from twelve to sixteen soldiers, a Pacific from eight to ten.

Complete with cots and their Arctic clothing issue, ten men crowd a thirty-six-foot room. In addition to the orthodox Army equipment, an Aleutian soldier has an Arctic field jacket, a two-piece parka, a wool helmet which covers all his head except the eyes, a pair of boots, a pair of shoepacs, overshoes, kersey-lined trousers, rubber pants, a rain shirt, innumerable gloves and mittens, fur-lined goggles, and a short ton of wool socks and underclothes. Each change of weather causes as much heartfelt discussion about proper dress as goes on in a sorority the week before the Junior Prom.

Each hut has at least one radio. Reception of standard-band broadcasts from the States is poor, but short-wave sets pick up San Francisco and Tokyo easily. Mostly the men listen to the Armed Services Stations, one of which is located at every major island base. These Army stations relay the hourly short-

wave news broadcasts of the United Network from San Francisco.

Unfortunately, one San Francisco station is only a split point away from Radio Tokyo. This sometimes caused confusion. One broadcast I particularly remember. The local announcer made his usual bridge, "We take you now to San Francisco for the news." There was a decent pause and then a metallic voice began talking about "the enemy naval attack on Sumatra." Tokyo Rose's kid brother speaking. After about two minutes of Japanese propaganda over the U. S. Army outlet, the GI announcer decided something was a bit off beam. He mumbled an apology about "technical conditions beyond our control" and for the rest of the news period we heard Spike Jones and his City Slickers breaking down "That Old Black Magic."

When not relaying news, the Army stations broadcast transcriptions of U. S. network programs, plus such special overseas broadcasts as Command Performance and GI Journal. Commercial programs were carried, but the blurbs were carefully edited out; unfortunately the Army in 1944 began to insert ads of its own, even including singing commercials on soldier savings deposits and a two-voice plug about the care and treatment of gas masks.

Not all soldiers are pleased by the persistent, homelike blare of the hut radios. Sergeant Eugene Elliott on Attu whipped out a bitter ode about the radio habits of the men in his plastic bungalow:

Oh, poets sing of the silent north,
And little do they know!
For it's plain to see that they weren't around
In the days of the radio.

A bunch of the boys were whooping it up
On the local NBC
And it may send you and it may send him
But it doesn't do much for me.

I'll walk alone in the frozen wastes,
And try to commune with God,
Singing cow-cow boogie the strangest way
And nobody think it odd.

The still cold nights are a source of song,
Yes, that's what the poet said,
And they turn it on when they first get up
And off when they go to bed.

Don't fence me in with the trolley song
At the end of a perfect day.
I dream of more than you dream I do,
My buddy. Going my way?

The larger posts all had newspapers, and on some islands both Army and Navy editors manned the mimeographs daily. First and most famous of the Alaska Department's periodicals was the *Kodiak Bear*, sometimes called *Alaska's Fish Wrapper*. A slangy sheet, the *Bear* specialized in corny humor which occasionally caught the full frontier flavor of Gold Rush days. Told that their paper had a truly Alaskan aroma, the editors once made it official by smearing the front page with fish oil. The *Bear* coined the classic meteorological summary, "Weather reports suspended for the duration but, Mac, this ain't Pebble Beach."

From similarly screwball starts, the papers to the westward developed into rather staid organs, devoted mainly to world events. Before long, most of their space was taken up by the official Army News Summary, the movie and radio programs, announcements of church services, and the officers' idea of what the men needed for their morale. But not on Adak. At that big base Corporal Dashiell Hammett, tough-guy mystery writer and Hollywood's gift to Special Services, edited an outspoken four-pager.

Hammett's mimeographed daily *Adakian* not only carried the news but sometimes rapped the news service for what the

editor considered inadequate or biased coverage. To provide art for his journal, Hammett unearthed a trio of competent cartoonists: Oliver Pedigo, Don L. Miller, and Bernard Anastasia. Pedigo's whimsical work shows a trace of Thurber; one of his best cartoons was a simple drawing of a big-footed soldier picking a buttercup. Miller's best cartoon appeared June 7, 1944; it showed a startled switchboard operator saying, "Invasion? Jeez, there goes ten bucks!" Anastasia's style was to show two dogfaces staring at an Aleutian rivulet while one asked the other, "How in hell does 'at make y' homesick for the Mississippi?"

Hal Sykes, the paper's movie reviewer, adequately man-handled the offerings at the GI emporiums. Of *Show Business*, the critic remarked, "George Murphy and Constance Moore have a romance so by-patched that when they finally clinch, you feel it's from sheer exhaustion." *Between Two Worlds* drew the snide aside, "Paul Henreid's below-eye bags seem to have fascinated the cameraman." *Wyoming Hurricane* was dismissed as a "minor libel agin' a swell state." Of another he said simply, "Well, at least it got out here in a hurry."

No matter how stale the plots, most movies shown in the Aleutians were of recent vintage. Often they were released on the Chain before the public saw them at home. The world première of *A Tree Grows in Brooklyn* was held on Attu. The movies were shown in large, well-equipped theaters which went by such names as The Gremlin, Barabara, Ripcord, Blue Fox, and Dolphin. A show cost fifteen cents and the program usually included the feature, a fairly recent newsreel, a cartoon or educational short, and considerable comment from the audience. At big posts there were four new programs a week, including one double feature. In addition, numerous sixteen-millimeter movies were projected in messhalls and rec rooms.

As for physical exercise, the soldiers at first got all they wanted in building the bases. When the camps were first completed, there was a period when the only outdoor pastime was chasing foxes over the tundra, a sport which may have ap-

pealed to the Japs, too, for Tokyo Rose knew about it; sometimes she opened her Aleutian broadcasts with, "Catch any foxes today, fellows?"

By 1944 most posts had gyms, fight cards, basketball leagues. An inter-island basketball tournament was played in 1945, with the winning team rewarded by a quick trip to the mainland and a look at the bright lights of Anchorage. Former sports writers in the Aleutians felt that the 1945 casaba champs could handle most college teams.

For the more sedentary soldiers there were, on several islands, libraries. The buildings were invariably comfortable and sometimes quiet. The average library on the Chain had seven thousand books, most of which had been dropped into red, white, and blue barrels on street corners by the generous reading public. Although this generosity resulted in a strange scattering of titles, the selections were invariably interesting.

Few of the GI keepers of the books were librarians as civilians, and the shelf arrangements were not likely to imperil the amateur standing of the custodian. At Umnak I found copies of *The Last Time I Saw Paris* in the sections for Travel, among Memoirs and Essays, History, Fiction, Biography, and finally Music. Under Bell Letters [sic] was *For Whom the Bell Tolls*. Classified as Useful Hobbies were *How to Become an Army Officer* and *The Murderer's Companion*. Snuggled against each other on the Philosophy Shelf were *Is Sex Necessary?* and *Forty Years of It*. And side by side in the section on English Grammar were Noel Coward's *Present Indicative* and Ilka Chase's *Past Imperfect*.

Aleutian soldiers tended to read more than they did as civilians. Men who were uninterested in literature before joining the Army seldom acquired the habit, but the bookish found time for the classics they had always intended to read and never got around to. After all, as Sergeant Gail Fowler put it, "There's nothing like curling up with a good book—if there's nothing to curl up with but a good book."

For a long time the woman problem in the Aleutians was

simply No Women. A bitter joke of the early days of the war was "There's a woman behind every tree in the Chain." Later soldiers returning from the treeless islands claimed they got sexual pleasure from the sight of a spruce.

Eventually nurses and Red Cross workers were permanently stationed on several islands. Even so, the arrival of a USO troupe still stirred the men from Dutch to Attu; dogfaces would wait two hours in a blizzard to get into the theater for a third-rate vaudeville performance. After each show arguments raged for days about the sexual possibilities of every female under fifty.

The monopolization of all available women by the officers was one of the bitterest GI complaints in the Aleutians, ranking along with the officers' liquor ration. GIs who were lucky to get a beer issue a month, drooled outside the luxurious officers' clubs; and though grateful for a moment, later nourished deep resentment against the gentlemen who bought whiskey for two dollars a bottle and bootlegged it to their subordinates for fifty dollars a bottle.

But even with girls to ogle occasionally and a drink now and then, GIs never cared for garrisoning the Chain. Sergeant John Martin gave the soldier's summary of Aleutian life in six succinct lines:

Life in this quonset
For them that wants it,
Is all very good, I say.

But I'll live my life
Where evil is rife
For I'm of a commoner clay.

Cruise to the Kuriles

For the men of the North Pacific Fleet and the Eleventh Air Force, the Aleutian war did not degenerate into a sitzkrieg after Kiska.

Every few weeks through 1944 and 1945, task forces of gray warships slipped out of port and, with bones in their teeth, bucked the Japan Current toward the Kuriles. The trip was never pleasant. Northern Pacific waters are usually rough and the sky overcast—a meteorological fact not unwelcome to men whose lives depend much upon surprise, and who know enemy planes are patrolling somewhere overhead. Then, hundreds of miles from the nearest friendly port, the destroyers and cruisers would blast Japan's northern bastions with tons of shells.

The attacks were made at night. And before their blind dates with enemy shore batteries, many of the sailors would go to ship's service to buy rubber contraceptives; they put the condoms around their personal papers to keep them from getting wet if the ship were sunk.

The run was the big moment. The task force would dash into the enemy harbor, blast away at the shore installations with the guns almost horizontal, wheel off and dash for the safety of the open sea, while behind it the fires leaped and wavered and the sea glowed with gold. Sometimes the targets were enemy air bases, sometimes ammunition dumps, sometimes the canneries that supply the Imperial Army with most of its fish. Always they burned.

After each shelling, things were rugged. The ships bounced and shook as they rushed through the dark at full speed, twisting and turning to avoid enemy fire. And, when the long night ended, a longer day began—a day of wondering whether angry swarms of torpedo planes would find the task force. They seldom did.

The Liberators of the Eleventh Air Force sometimes joined in the Navy's raids, staging diversionary attacks on different islands or giving the airfields a going over to keep the torpedo planes at home. More often the bombers were on their own as they made the long, lonely flight from the westernmost Aleutians to the northern Kuriles.

The flight was nerve-mangling—a sixteen-hundred-mile

round trip over water so cold it kills, through weather so uncertain it changes by the minute. Listening to the motors tugging against the strain of the bomb loads and the extra gas, feeling the plane wallow heavily through the rough air, watching the cloud formations change, the fliers tried not to think of what happened if a motor failed, a gas line clogged, or the weather blew up. They tried not to think about Newell Wyman and his crew.

Wyman was the pilot of a Catalina patrol bomber. He was bringing his big ship home after a routine flight over Japanese waters when, about a hundred miles off Attu, something went wrong. He had to land. Two of the eight men in the Catalina were lost when the plane cracked up in the rough water. Wyman and the other five made it into a pair of rubber rafts. They were paddling their prefabricated cockleshells toward Attu when two other Catalinas spotted them. For hours the planes circled, hoping the weather would clear enough for a landing. But the storm grew worse. His gas running low, Lieutenant Frank More radioed for another plane to take up the vigil. Attu replied that the field was sacked in—no planes could get off.

With barely enough fuel left to get his Catalina back to base, More decided to risk a landing at sea. In the gathering dusk he wheeled about and glided in at the heaving ocean. And in the rocking rubber boat, Newell Wyman stood and desperately waved his rescuer away. The water was too rough; a landing might cost eight extra lives. Regretfully, Wyman's fellow pilots accepted his decision. They flew away, the rafts quickly fading out of sight in the fury below.

The storm lasted three days. When it was over, rescue boats reached the rafts. They were too late; the exposure had been too severe. Wyman and his crew were dead.

The bombing of the Kuriles began on July 10, 1943—five weeks before the recapture of Kiska—with a raid on the naval base at Paramushiro. Although the strikes gained in vigor and frequency, weather and distance and the low priorities of the

Aleutian theater kept them from being of major importance for many months. Nevertheless, they bothered the Japs excessively. The raiders shot up barracks, blew up oil dumps, and blasted shipping. Once they caught troops marching on a parade ground; another time they surprised an outfit on maneuvers. And nearly always they took some pictures.

Of all the Japanese territory, American military authorities probably knew least about the Kuriles when the war began. The islands are a string of volcanic peaks, much like the Aleutians, running between the Kamchatka Peninsula and the Japanese mainland. Unimportant commercially and almost uninhabited, they attracted neither American businessmen nor American missionaries. Tokyo carefully kept military visitors away. So when it became necessary to learn where the enemy garrisons were located, where the roads led, what courses the ships followed, aerial reconnaissance was the logical answer.

The task first fell to the Navy's Catalina seaplanes. The clumsy Cats had a tough time. Far beyond the range of friendly fighter protection, they were just big bull's-eyes to Zero pilots. After the air strips were built in the western Aleutians, the Navy began to send over the Bats—land-based Venturas of Fleet Air Wing Four, fly-by-nights that took their pictures with the aid of flares.

The Venturas operated at very long range; their margin of fuel safety could be measured in Martini glasses. But they were fast enough to get in and away before the Zeros could take to the air after them. They carried bombs that they used primarily as bait. When enemy gunners refused to reveal their positions by firing, the bombardier would goad the antiaircraft into action with a low bombing run.

Eleventh Air Force Liberators operated both day and night, blasting the naval bases in their nocturnal missions and taking travelogue movies of the snowy volcanoes by day. Probably because it was not their main assignment, the Liberator pilots developed a passion for long-range duels with Jap ships. Since the enemy had been careful not to expose many transports

in northern waters after the fall of Attu, the Libs mainly battled tankers and the little picket boats which waited outside the Kurile harbors to report the approach of Americans.

But on May eleventh, three days after V-E Day, the hunters found bigger game. A force of Liberators and rocket-firing Mitchell mediums was boring through a low overcast toward the Kataoka naval base on the island of Shumushu. As the bombers neared the target, the clouds lifted; below lay fifteen Japanese ships—cargo vessels, troop transports, naval escorts—the biggest convoy seen in those waters since the attempt to reinforce Attu. The Mitchells went in low, raked the vessels with rockets and sprayed the area with 300-pound bombs. One cargo ship, hit from mast height, exploded and went down. The Liberators cruised at medium altitude, unloading twenty 150-pounders. A naval escort and a freighter received direct hits, and a transport shuddered under a near miss before the airmen had to turn and streak for home, seven hundred miles away.

By Central Pacific standards, it had been a bush-league battle. Only one ship was sunk for certain, only one Mitchell lost. But the news of the fight sent a tremor of anticipation racing along the Chain. There had been troop transports in the convoy; if the Japanese felt it necessary to risk ships in the northern waters, perhaps there was going to be real action in the North Pacific again.

Return of the Russians

After V-E Day, the old pre-Kiska tension returned to the Aleutians. It grew in part from the knowledge that now the Pacific had top priority, and in part from a rumor, a rumor heard up and down the Chain—Russian troops were in the Aleutians.

At first this was just one of the many rumors repeated in the latrines and officers' clubs and rec huts and workshops,

but gradually it came to be *the* rumor. Soon it was accepted as gospel. Unlike many other Aleutian rumors, this one was correct.

The Russian base was, in theory, a top-drawer secret, for the Soviet Union had not yet come into the war. But before long it was an open secret. GIs on Attu and civilians in Anchorage knew about the base and its approximate strength; one day when I was in the mainland town of Seward, two A.T.S. officers came into a candy store and over milkshakes talked about their visit to the secret base and brought out Russian-English phrase books they had bought from Soviet troops. Some secret.

The Russian soldiers were stationed at Cold Bay, halfway down the Alaska Peninsula and not far from where some of Baranof's men were massacred by the Indians. They were being supplied with and trained in the operation of American landing equipment. That the conditions around Cold Bay are strikingly similar to those found in the Kuriles escaped nobody.

To Aleutian-based GIs, the lend-lease of landing craft and the Russian practice in amphibious operations added up conclusively to a Russian entry into the war and a joint Russo-American attack on the Kuriles.

So the tension grew. Whenever the North Pacific Fleet steamed out of Massacre Bay, whenever an especially heavy flight of bombers took off from the great air base at Shemya, whenever one of the new Superforts was seen winging west along the Aleutians, the gang on the Chain wondered "Is this it?"

But then came the Bomb; the anxious, exciting week of waiting by the radio; V-J Day with its heavy drinking and extra rations; the slow, wonderful realization that it was over; and after that the rumors centered on demobilization and the only question that interested anyone was, When do I go home?

V.

THE FUTURE

I am going to set up a study of Alaska and the Aleutians as a place to which many veterans of this war, especially those who do not have strong home roots, can go to become pioneers. Alaska is a land with a very small population, but I am convinced that it has great opportunities for those who are willing to work and to help build up all kinds of new things in new lands.

—President Roosevelt, 1944

THERE HAD been a beer issue. It was raining and we all sat in the rec hut, complaining about the weakness of three-point-two and getting drunk on it. The phonograph stayed steadily on "Waltzing Matilda" and Radiotokyo on American atrocities. Nobody was listening.

Ted and Tookie and Dirty Joe played a three-paddle game of ping-pong, losing points whenever they paused to drink the green beer. Hairless Joe was busy at the newsmap, outrunning the Russian advance with his red pencil. The Hood, his chair turned into a corner, read steadily in *War and Peace*, and the rest of us argued about the next war.

"Costa Rica sounds best to me," Mac said. "Only forty-eight men in the army and they're all in the band. Nice, non-mil'trist country. Sit in the sun all day and peel bananas."

The Hood looked up. "I recommend dependents. Eight children ought to keep anyone out of any war. I intend to get to work on it as soon as I get home."

"You gotta get married first."

"Says who?"

Hairless Joe turned from the map, where he had just beaten

the Soviets into Stettin. "You don't want to go to any of those tropical countries," he said. "And the way wars go nowadays, there's not much use being a civilian. When the next one comes I'm going to pick me out a nice, wet, barren, lonesome, unwanted hellhole that nobody in the whole damn world cares for, and I'll sweat 'er out there."

Mac stared at the empty bottle in his left hand and shook his head slowly. "Hell, that won't work," he said. His voice was sad. "Where do you think you are now?"

The extravagance of the question was born of beer, but the attitude that the Aleutians are the excrement of the earth and the anus of the universe is nearly unanimous among servicemen. When the editors of *Yank* unearthed a GI, Private Frank Miller, who liked the Aleutians, they gave him a full page with pictures. And Private Miller's resultant fan mail was both fantastic and oddly indignant. Most of his correspondents seemed convinced that he was bucking for a discharge from the Army on grounds of mental disability. Short of shanghaiing, nothing could get most soldiers back to the Chain as civilians.

As for the folks back home, the Aleutians have had an extremely bad press. In the public mind they are unjustly associated with Arctic temperatures and quite reasonably connected with mud and high wind, none of which recommend them to settlers, sight-seers or small businessmen.

Nevertheless, several thousand people seemed destined to be in the Aleutians during the next few years. Here's who:

Return of the Natives

Most of the Aleuts have returned to the islands. The Pribilof sealing colony is back in its old homes on St. Paul and St. Lawrence. They returned during the war, as soon as American control of the North Pacific was firm enough to render a Japanese invasion unlikely. Sealing operations since 1944 have been better than ever.

A majority of the Aleuts are glad to be back. The advertised beauties of Admiralty Island and the comparative comfort of life in an abandoned herring cannery, to which they were evacuated, were not to their liking. They thought the new island too hot, the forests frightening, the fish untasty. Many died of tuberculosis.

The Aleuts have not returned to the quiet, empty islands they remembered. Four years changed the Chain. Roads were gouged across the rolling tundra, airfields laid in former swamps, half-barrel huts and huge warehouses were set in the muskeg.

In 1941 there were less than a hundred houses and buildings, barabaras excluded, in the Aleutians; today there are enough Pacifics to house more than the entire prewar population of Alaska. In 1941 there was not a dock beyond Dutch; today a line of piers big enough to handle Liberty ships links the Chain. On islands where no machine had turned prior to Pearl Harbor, there now are garages and hangars and ship-repair facilities. At an island where the schoolteacher was the only doctor before the war, there stands today a hospital large enough to furnish a private suite to every returning Aleut.

The natives are not enamored of the prospects offered by such civilization. Their old life was hard but they were happy. They savored the solitude. Sociologists who studied them before the war found the Aleuts content: the men liked to hunt and fish, the women to weave their wonderful baskets. Whether such primitive satisfaction can exist alongside airfields and army barracks is uncertain. The largest Aleut settlement, that in the Pribilofs, now has a population of 490.

But one thing is definite. From now on the thousand remaining Aleuts will be a minority in their own islands.

Base Business

The Navy lost the first battle of the Aleutians in 1922. Not a shot was fired. Japan's suave diplomats at the Washington

Naval Conference talked us, among other things, into agreeing "to preserve the status quo in the Aleutians." Devoid of diplomatic double-talk, that meant "No American bases west of Dutch." Thus the Japanese Kuriles were protected.

Having bought them back with blood, the Army and Navy are in the Aleutians to stay. The size of the postwar establishments is still not definite, but it is certain some soldiers and sailors will be around to curse the Chain's climate for years to come. Most of the bases are now on a caretaker basis. Of the 21,000 men the Army expects to keep in Alaska after July, 1947, probably less than a fourth will be in the Aleutians. But there will also be naval bases.

Nothing in the war outdated Euclid. A straight line remains the shortest distance between two points, and a straight line from Seattle to Tokyo—the misnamed Great Circle route of Mercator projection maps—passes through the Aleutians. Thus the Chain cuts the shortest sea route to the Orient and outflanks the longer Hawaii-Midway line. Bases dominating these routes will not be abandoned.

Weather still cuts the full effectiveness of the Aleutians as offensive air bases. Only about one day in five is good enough for long-range combat operations. But improvements in meteorology and the development of rockets, which do not have to feel their way back through the fog, have increased the islands' importance as outposts.

Adak remains the largest base in the islands, and is the center of Army activity along the Chain. Dutch Harbor has been closed down and is now no more than a weather station. To the west, the installations on Attu are maintained by less than a hundred men. Shemya, Attu's tiny neighbor—a low mountain that was levelled off to make the best airfield on the Chain, is still doing business, as is Amchitka. Some of the smaller bases have been abandoned, including the entire 70,000 acre island of Kiska, which has been declared surplus and in February 1947 was offered for sale by the War Assets Administration—with no takers.

Short Cut to Shanghai

It was my first day in the Aleutians. I staggered toward my hut, my duffle bag balanced unsteadily on my right shoulder, my left arm long from the weight of the typewriter. A plane roared in toward the airfield and a corporal, looking up at it, barged into me; I fell in the snow on the left of the boardwalk, my bag in the mud on the right. The corporal looked down on me happily. "It's a red tail," he said.

"What the hell's a red tail?"

For the first time he noticed my bag. "Oh, you're one of the new ones, huh? Red tails are commercials." And he left me to my swearing.

I picked up the bag, scraped off some of the muddy snow with a sliver from the walk, and went into the hut. It was noon. Some graveyard shifters were sleeping and the blackout boards were still over the window. Only one light was on; it fell on the shoulders of a soldier who, clad in nothing but a fatigue shirt, sat on his cot and contortedly trimmed his toenails. He looked up as I came in. "Was that a plane I just heard, old chum?"

"Yeah," I said.

"A red tail?"

"So they tell me. What's a red tail?"

"Commercial plane. They carry mail."

I understood then, although not as well as after spending a year sweating out the arrival of red tails with letters. At Umnak, one of the islands where I was stationed, the commercials did not always land. When we heard one coming we would run out and with the eager eyes of little boys, watch it approach, then with the stolid faces of the defeated, watch it disappear westward without stopping. Red tails were very important to us.

The service was fast and safe. Although they pushed through in all but the most miserable weather, there were few accidents

on the commercial planes. While I was on Attu, so far out in the Pacific that the international date line has to jog to keep the island in the same day as the rest of America, I sometimes got mail from New York in sixty hours. More often it took five days, and sometimes everyone along the Chain would wait a week or more between the arrival of red tails. Not even the beams and wireless and lighted runways and wing de-icers and radar can make bucking a williwaw a good bet.

The trouble with the Aleutians for flying is that they are too far south. The rule of thumb in Alaskan aeronautics is that "safety lies north." In the winter the Aleutian temperature hovers around freezing and humidity is high; there is enough moisture to congeal on moving objects. Pilots fear icing. Furthermore, this borderline temperature makes for uncertain weather and intensely local conditions. Men standing in the sunshine on Shemya may watch blizzards beat Attu; planes on Umnak may take off while neighboring Unalaska is sacked in. To the north the weather is colder but constant.

For a time it seemed that the postwar Pacific flying routes would by-pass the Chain in favor of the longer, overland passage to Asia. Like the Aleutian route, this was developed by the war. The skyway to Siberia runs from the midwest across Canada to Fairbanks and Nome, then across the Bering Strait to Siberia. This, some thought, would be the way planes would go in the future. But the Russians have indicated that they are not enamored of the idea of foreign planes operating in Siberia.

Besides, many pilots now believe that going north would be a waste of time. They argue that with the more powerful postwar planes and the more comprehensive weather information now available, not even a williwaw can cause more than a few hours' delay. The passenger planes can fly above the storm.

Civil Aeronautics Authorities seem to agree. In its list of recommended routes of American air service after the war, CAA listed four major trans-Pacific lines. One is the skyway

to Siberia; two runs from California to Hawaii and then splits to cover the central and southwest Pacific; and the fourth runs from Seattle to Dutch Harbor, along the Aleutians, across the Kuriles, down to Tokyo, over to Shanghai. On April 24, 1946, a Constellation Clipper chartered by United Nations Relief and Rehabilitation Administration flew from Shanghai to Seattle via the Aleutians in twenty-one hours, twenty-six minutes—cutting twelve hours off the best time made over the southern route.

So, besides the Aleuts and the armed forces, there will be civilian airmen in the Aleutians for a long time to come.

Home for Whom?

"By reclaiming our historic islands in the Aleutians," Radio Tokyo rhapsodized in 1942 during one of its interesting interpretations of events past and future, "the Imperial Japanese Army has secured homes for five millions of our people."

Chain-weary GIs, inclined to feel that such punishment would perfectly fit the crime, were enchanted with the idea of five million Japanese homesteading the Aleutians. Perhaps the islands could support some such population on an Oriental starvation diet. But barring an unexpected economic development, such as the discovery of valuable minerals in previously unexplored mountains, it is unlikely that more than a few hundred American civilians will move into the island outposts.

Nevertheless, many of the obstacles which kept the Aleutians from being developed have been removed. People have now heard of the islands; before 1942 few Americans could either locate or spell the Aleutians.

Nor are they any longer remote. Before the war Attu received mail every six months if the Coast Guard cutter could get into the harbor. The only other communication with The Outside was through the schoolteachers' radio. Today Attu is not more than sixty hours from any airfield in the world.

High-powered radio transmitters link the last outpost to the mainland. Ships call frequently. Though service is already below wartime standards, settlers will never again be isolated in the old six-months-between-mails sense. Their problem will be to wrench a living from the unco-operative land.

If settlers want to try farming, the land is theirs for the asking. Most arable land in Alaska, including that in the Aleutians, belongs to the government. An Alaskan settler may stake out up to a hundred and sixty acres. If he lives up to the requirements for five years, the land is his. The rules are simple:

The land chosen must be agricultural. The homesteader must establish residence within six months after applying for the plot and he must live on the land at least seven months a year for three years. In the second year one sixteenth of the land must be under cultivation and another eighth put to crop each succeeding year. A house must be built the second year. And that is all.

Aleutian land will produce. Though their main economic interest lay in fur, the Russians had farms on the Chain and did fairly well with agriculture. The farther east, the better the land and climate in the Aleutians—Unalaska, Umnak, Umnak and Atka have the best farmland. The growing season in the eastern Aleutians is 145 days, in the western islands 130. The long summer days cause phenomenal rates of growth. Some soldiers experimented with gardens. Their main success, however, was with horse-radish.

Though there is farmland, there are no farms along the Chain. In the past there was no near-by market for farm produce, and haphazard transportation facilities made production for Alaskan mainland consumption impractical. It is possible, though unlikely, that postwar commercial airfields and military establishments will provide consumers for Chain-grown groceries.

A lively argument over Aleutian livestock has been in progress for a century and a half. After a look at the luxuriant Unalaska grasses, Captain Cook, who did not spend the winter,

predicted that cattle could live outdoors the year round. Later visitors, noting the absence of ruminants, felt that where there were no grazing animals the grass could not be nourishing. First experiments by the Russians were hardly conclusive, for the settlements were perpetually hard-pressed during winter, and whenever pickings were slim the starving Siberians thought of steaks. They were no people to put aside the promptings of impulse.

Later, however, cattle were bred on several of the eastern islands. They can live out of doors through a mild winter, but not a bad one, and since there is no way of being sure in advance, the livestock must be housed. The greatest difficulty is winter feed. The high humidity of the Aleutians makes it difficult to store fodder, and slow transportation made it almost impossible in the past to rush in K-rations for cattle in the event of emergency. Cattle have survived on the Pribilofs, just north of the Aleutians, for many years. But a cow that an admiral on Attu had brought out to supply him with fresh milk (to the righteous anger of milkless enlisted men) had to have bales of hay flown out regularly.

In the early days of the war, when Navy neophytes at Dutch Harbor commented on the smallness of the Alaskan fleet, a common quip was, "But you should see all the ships at Umnak."

"Are there many there?"

"Thousands."

"Thousands! What are they doing?"

"Grazing."

The tyro had been the victim of a particularly poor pun. The "ships" were the sheep of the Aleutian Livestock Company. Founded by A. F. MacIntosh after the last war and then taken over by a Chain-charmed character named Carlyle Eubanks, the A. L. C. is the only commercially successful agricultural project in modern Aleutian history. When war forced the evacuation of Umnak, Eubanks' flock numbered nearly twenty thousand.

Sheep do well in the Aleutians. The cool, moist climate makes their wool heavy, and their only natural enemies are the monstrous ravens which eat cripples alive and sometimes attack the healthy sheep, diving on them until the scared ewes stampede over cliffs. Though almost uncared for after the evacuation of their caretakers, many of the sheep survived the war.

Caribou also thrive in the Aleutians. Caribou are simply undomesticated reindeer. They were introduced on several Aleutian islands by the Office of Indian Affairs to ensure the natives an all-year meat supply. The animals belong to the Aleut communities. When the war started the herds were not numerous enough for commercial exploitation, but they continued to prosper after Dutch Harbor. They have no enemies and no diseases. The only casualties among the caribou occurred when animals wandered too near sentinels at some of the Spam-crammed outposts.

Another livestock possibility is the musk ox. None are in the Aleutians now, but a herd planted ten years ago on the island of Nunivak, four hundred miles northeast of Dutch Harbor, has increased tenfold. The "musk" in musk ox seems to be a misnomer, for the hardy, hungry Alaskans who have sampled steaks from the hairy, ugly creatures claim the taste equals porterhouse.

On the hoof, musk oxen do not look tender. Heavy-headed, big-horned, short-legged, they are tough enough to hold off a wolf pack; only the grizzly or man can kill them. When in danger they form a circle, the cows and calves inside, the bulls facing out. Individual bulls rush the enemy in short, fierce charges. They almost never attack men and, being fearless, are such easy victims to firearms that though the ox was once a native to Alaska, the Nunivak herd had to be brought from Greenland. The last domestic ox was killed near Point Barrow seventy years ago.

Besides providing six hundred pounds of potential stew, the musk ox has a magnificent coat of wool. Cloth made from it is

almost waterproof and will not shrink. This, combined with his ability to eat almost anything, may make the musk ox the bull of the woodless islands by 1960.

Currently the favorite farm animal of the Aleutians is the fox. They come in three colors: red, white, and blue.

Government agents enthusiastically discourage would-be Dan Boones from attempting to trap wild animals commercially in Alaska, pointing out that the field is overcrowded; even experts have a hard time making money as hunters. But, suggest the agents, why not try fur farming? At last report three hundred licensed fur farmers operated in the Territory. At Petersburg, on the mainland, an experimental station studies diseases among fur animals, experiments on proper diets, and checks on breeding. The major fur crop on the mainland is mink, but the Aleutians have been found ideal for foxes.

The system is simple. Foxes are put on an uninhabited island and left, sometimes with an Aleut watchman, more often by themselves. Every two years they are trapped and pelted. The blue fox, which is really a white fox with a dietary deficiency, brings more than forty dollars per pelt. The reds are worth thirty, whites twenty, and crosses thirty-five. Silver foxes have not done well in the Aleutians.

Coveted Crustaceans

"Crab grounds lie in close to shore from Atka to Kiska," the Army's booklet on emergency foods in the Aleutians sadly reports, "but only the Japs seem to know which are edible and how to catch them in volume."

Japanese scientists were the first to learn a way to can crabmeat cheaply. This discovery, plus cheaper labor and a knowledge of the crustaceans' habits and habitat, let the Japanese dominate the American canned crabmeat market. Before Pearl Harbor eighty-five per cent of American crabmeat was Japanese packed; most of it came from floating canneries which

operated off the Aleutians. It is unlikely that alien canners will be welcomed in the Bering for a long time, and American firms already are taking over the domestic market.

The Japs used floating canneries because they had to. Their crab pots were a thousand miles from home, and crabs must be canned immediately or they spoil. But since crab-canning is an all-year operation, permanent plants are preferable to floating ones. American companies are likely to locate a few in the Aleutians within the next year or two.

Adak is the most likely crabbing site. In the Aleut tongue, "adak" means "crab" and the island was probably named after the Bering Sea king crabs—huge, spidery fellows which often measure six feet from claw to claw. They abound off the north shore of the island. Most crabs are caught in twenty fathoms or less of water, immediately off the coast. The usual way of taking them is in crab pots—latticed steel traps that the crabs crawl into after bait of hardshell clams. The crabmen mark the pots with buoys and go on regular runs to collect the catch, which they deposit in floating corrals. Delivered alive to the cannery, the crabs are shelled—which kills them instantly—cleaned, steamed, bathed in acetic acid, and washed in cold water, then put in cans and steamed again.

The small canneries sell their pack to wholesalers, who merchandise the products of several firms under the same trade name. As now organized, the packing industry is small time and still open to men with limited capital plus a knowledge of the ways of the sea—and the ways of crabs.

If Aleutian coves someday shelter crab canneries, they may also serve as seasonal bases for other types of fishing. The banks around the islands have long been frequented by fishermen, but the rough, uncertain weather and the long haul back to port have restricted operations to relatively large ships. Ports, plus modern methods of meteorology and the Navy's new, accurate charts of Aleutian waters, will make it easier for small-scale operators to go after herring and halibut.

Little is known about the great runs of herring in the Aleu-

tians. They arrive in July and August. Coming in with the tide, they enter river mouths and lagoons, sometimes running up as far as a lake, but always returning on the receding tide. Commercial fishermen take them with nets or rakes from small boats.

Herring are small, halibut huge. The halibut run from a foot and a half to six feet in length and weigh from ten to four hundred pounds. They bite on anything; Aleuts use clams and mussels for bait, while commercial fishermen favor salt pork. Which is as good a use for it as any. Except for salmon, halibut are the most important commercial fish in Aleutian waters.

Deep Sea Trawlers, Inc., of Tacoma, Wash., announced in the spring of 1947 that they were equipping a trawler with quick freezing apparatus. The boat will fish the Aleutian area, deep freeze the catch with equipment which can handle 1200 pounds hourly at minus 25 degrees.

Fish are amazingly abundant along the Chain. In 1780, British fishermen marvelled at Captain Cook's tale of how a few men in a small boat off Unalaska could catch enough fish in an hour to supply the crews of the *Resolution* and the *Discovery*. And in 1945, GIs marvelled at the fish stories of Edward Haracich, a Croatian fur farmer who lived in the Aleutians for twenty years before the war and came back to the Chain as a civilian worker for the Army.

"There isn't enough fresh fish," Haracich said in discussing the Army's Aleutian diet. "The ocean is full of them. You can't catch very much on the Bering side of Adak, but near the Bay of Islands, there are some fine fishing banks. With two friends, I once caught three tons of fish in an hour. Plenty of cod and sea bass, some halibut."

Another man I know has a deep appreciation of Aleutian fish. His name is Enrico Traina. When Traina, who is a Corsican from Brooklyn, first got to the Aleutians, he did not like the islands. He did not like them at all. "They're just like New

York," we sometimes assured him, "too many people and no trees." But that didn't seem to make Traina happy.

He spent his spare time making knives out of old files and caribou antlers. One soft spring day he went for a walk and in a pool below a waterfall saw a trout. Almost by reflex he jumped in after the startled fish. His hands closed on it momentarily, but the trout flipped away and disappeared under an overhang. Traina came back to camp, got one of his knives, wired it to a mop handle, and returned to the stream. That night we had a two-foot trout for supper and Traina had a new interest in Aleutian life. He was a sports fisherman; for a sportsman the Chain is not a bad place.

He fished both fresh and salt water, almost invariably spear-ing or hooking a good catch. One day I met Enrico returning from the kelp beds with a string of strange, reddish fish about twelve inches long.

"Do you know what these are?" he asked.

I recognized them from a description in an emergency foods booklet. "Pogy."

"They good to eat?"

"The Aleuts ate them, but they ate a lot of things. I've never tasted them."

"Well, come to the messhall in about an hour and I'll have some fried."

When I showed up for the fish fry, Traina shook his head sadly. "Sorry. They were all bad."

"What was wrong with them?"

He reached into a pail, pulled one out, and split it open with one of his knives. "Look at the color they turned."

The flesh was beautiful but disconcerting, a clear blue-green. Then I remembered something I had read about pogies. "That's the way they're supposed to be. They turn white when cooked."

"Sure?"

"That's what the book said."

Traina started to clean the fish, but the mess sergeant hustled

over. "You don't cook no bluefish on my stove. It ain't civilized eating bluefish."

The Aleuts were right, the sergeant wrong. Cooked over an open fire, the pogies were superb.

Senators, Tourists, and Such

On my second day in the Aleutians I made a serious mistake. The sun was shining and I told a two-year man that the Aleutians didn't look so bad to me. He spat in contempt. "There are two types of soldiers, Mac. Damn fools who like the Chain for the first week, and human beings smart enough to hate it from scratch."

Nevertheless, on a warm summer day the Aleutians have charm. The red mountains reach up from the soft greens of the tundra hills, a challenge to any hiker. White streams race through little valleys and the breeze moves lazily in the long grass. Lupine proudly proclaim their presence with bursts of white flower, and buttercups and violets hide shyly in the shade of the grass. A trout snaps a fly in a quiet pool, and a red fox creeps quietly toward a sparrow. A family of caribou browse on the meadow and stare with curious, nearsighted stupidity at the approaching hiker, until the shifting winds bring them the scent and they lope gracefully back to the hills.

Such weather soldiers call "senatorial." They are not complimenting their duly elected Congressmen. In the early days of the war, when things were really rough along the Chain, a committee from Washington flew out to Dutch to see if soldiering was as tough as stated. They arrived on a beautiful day and left twelve hours later with the sun still shining; back home they intimated to reporters that the Aleutians were really somewhere between Sun Valley and Miami Beach, a reaction which did not endear them to the men who had waded in muskeg for months, fought the williwaws, camped in the snow.

Yet it was an understandable mistake. Potentially, the Aleu-

tians are a nice place to spend a few days; it is as a place to spend a few years in the Army that they are undesirable. At first a visitor is overwhelmed by the beauty of the scenery—a combination of mountains and meadows and deep, dark water unmatched anywhere in America. It is warm in summer and not too cold in winter. The fishing is superb, the ski slopes tempting. Even the storms are fun for a while.

In time the Aleutians may tempt the tourists of a nation that likes travel. In time they may become the Adirondacks of the air age, a nice place for a quiet week end away from the city.

Epilogue

A friend who lived in my hut in the Aleutians has just come in. He asked what I was writing and I showed him the last few paragraphs. I expected him to scoff.

"Tourists in the Aleutians?" he said quietly. "I've a better idea. It's a business no one else has thought of and it would make a fortune."

"What?"

"I'm going to open a lumber mill on Kiska."

"Where'll you get the timber?"

"Hell," he said, grinning at last, "where you going to get the tourists?"

APPENDIX

BIBLIOGRAPHY

THIS LIST is not intended to be all-inclusive. Although no work of general information has been published on the Aleutian area, a considerable literature about the area exists. The story of the discovery and Russian exploitation is covered in the histories of Alaska; the history of the war in the books by newspaper correspondents; geography in a number of handbooks.

Many books and articles about the Aleutians have been written by specialists for specialists. There are monographs on marine animals, studies of the avifauna around Attu, notes on the Unalaska collared lemming. Except where they have historic interest, I have not included such works in this bibliography. Instead I have tried to list books of interest to the general reader, works which are still in print or obtainable in standard libraries.

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NAMES AND PLACES

Most names in the Aleutians are of either Russian or Aleut origin. Rendered phonetically into English, they have taken on a number of spellings. Attu is sometimes Atto, Atu, Atoo, Atue and Ahtoo. I have encountered "Unalaska" in fourteen versions, including "Oonahlyshka." Army censors report finding sixty-four versions of "Aleutian" beginning with "A," and roughly twenty others starting with "E," "I," "O," and even "U" in letters leaving the Aleutians. *Time* has spelled Adak two different ways. Throughout the work I have followed the spelling accepted by the Army.

Some English names are direct translations of the Russian. While this simplifies the spelling, it does not always eliminate confusion. The translation of "Blizni" into "Near" makes a casual glance at the map perplexing, for the islands nearest Russia are, of course, those farthest from their present owners. Islands, harbors, and major mountains bear names of long

standing. But smaller landmarks have been renamed—or named for the first time—by the Army and Navy. Some places have names based simply on the military's phonetic alphabet. Thus the knob on Attu known as "Point A" to the planners of the campaign has become, officially, "Point Able." Other names stem from the fighting. The hill on which the Army engineers broke the Japanese counterattack on Attu is now Engineer Hill. Others were simply named by the soldiers who camped near them; the Army okayed the GI selections but banned any soldier from naming more than one landmark. This was necessary after one lovestruck corporal had called a mountain, a stream, a lake, a ridge, and a pass "Hazel."

The major island groups in the Aleutian Chain, running from east to west, are:

The Fox, or Leesi, Islands. This group includes the three largest Aleutian Islands: Umnak, Unalaska, and Umnak. The group is sometimes thought of as including the islands of the Krenitzin cluster: Akun, Akutan, Ugamak, Avatanak, Rootok, and Tigalda.

The Islands of the Four Mountains. There are five islands in this group: Chuginadak, Herbert, Carlisle, Kagamil, and Uliaga. Although fairly large, these islands have had little importance since the early days of the Russian occupation. Between this group and the next lie four middle-class mountains: Yunaska, Chagulak, Amukta, and Seguam.

The Andreanof Islands. These were named after the explorer, Andrean Tolstykh. They include Adak, Atka, Amlia, Great Sitkin, Kanaga, and Tanaga. Before the war Atka had a village, which was destroyed during the evacuation; it is now being rebuilt. Possibly the best known of the central Aleutians before the war was Amatignak, now seldom heard of. It is the southernmost island in the Chain and was often sighted by ships making the Great Circle run from Seattle to Tokyo.

The Rat, or Kreesi, Island. These were named because of the smallness of their fauna. There are three fairly large islands—Amchitka, Kiska and Semisopochnoi, plus five smaller ones: Rat,

Little Sitkin, Chugul, Davidof, and Khwostof. Between the Rat group and the ultimate Aleutian Islands lies the lone speck of Buldir.

The Near, or Blizni, Islands. They were named for their proximity to Siberia. The major islands are Attu and Agattu. A small cluster, the Semichi Islands, lying southeast of Attu and northeast of Agattu, includes the island of Shemya.

AVERAGE PRECIPITATION IN INCHES

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Atka	6.53	4.43	5.54	5.19	5.13	3.98	5.55	5.41	6.52	7.70	8.26	6.00	70.24
Dutch Harbor	5.80	5.24	5.01	4.02	4.41	2.74	1.92	2.35	5.21	7.33	5.71	7.03	56.77
St. Paul	2.26	1.61	1.87	1.36	1.52	1.39	2.73	3.25	3.47	3.32	2.04	2.22	27.94

A few comparisons may be helpful. The January average temperature in New York City is 31.3 degrees; in Kansas City, 28; in Cleveland, 26; in Seattle, 41; in Minneapolis, 13; in Chicago, 24; in Albany, 23; and in Philadelphia, 33.

The July average temperature in New York City is 74; in Kansas City, 78; in Cleveland, 71; in Seattle, 66; in Minneapolis, 72; in Chicago, 72; in Albany, 73; and in Philadelphia, 76.

The average annual rainfall in New York is 41.6 inches; in Kansas City, 29.6; in Ohio, 37.2; in Minnesota, 26.8; in Illinois, 31.8; and in Pennsylvania, 41.9.

Because of the west to east movement of weather, the Aleutians put their imprint on the weather delivered to the States a few days later. One of the best descriptions of this process is found in "Tempest and Storm in Ultima Thule," by Lieutenant Howard B. Hutchinson, U. S. Navy, and published in the Alaska Number of the *United States Naval Institute Proceedings*, Vol. 63, No. 413, July, 1937.

SEALING

BECAUSE of the wild wrangle about the rights of international sealers, a considerable literature exists not only about the diplomatic background of the dispute, but on the history of the Pribilof herd and the smaller herds on Russia's Commander Islands. The best single source is *Alaska and the Seal Islands*, by Henry W. Elliott, published by Charles Scribner's Sons, New York, in 1897.

Since the sealing monopoly passed into government hands, the Fish and Wildlife Service of the Department of the Interior has kept elaborate statistics concerning every phase of the sealing industry. For example, *Statistical Digest*, No. 10, published in 1943, has tables under the following headings:

Payments to Pribilof natives by island and type of work.

Daily seal killings by island and reef.

Ages of seals killed by island.

Comparative values by size and grades of skins sold.

Summary of all government-owned skins.

Estimated number of harem and idle bulls by island and reef.

Computation of breeding cows by island and reef.

Distribution of pups by island and reef.

Mortality of seals at sea.

Complete computation by islands, age, sex, with supplementary statistics on natural mortality rate and killings.

FISHING

THE FISH AND WILDLIFE SERVICE publishes an astoundingly complete set of statistics about the Alaskan fishing industry. The annual report breaks down the catch, pack, and labor force and lists everything from the number of Puerto Ricans employed in each district to the amount of Scotch-cured herring produced in southeastern Alaska.

The following statistics on the western Alaska fisheries, which includes the Aleutian and Alaskan Peninsula waters, are taken from *Statistical Digest, No. 10, Alaska Fishery and Fur-Seal Industries, 1943*, edited by Ward T. Bower.

Persons engaged in fishing, 1943

Whites	2,402
Natives	1,617
Chinese	II
Filipinos	561
Hawaiians	3
Latin-Americans	37
Negroes	36
Puerto Ricans	14
Spaniards	18
Unknown	8
 Total	 4,707

The following statistics were taken by the Alaska Planning Council from the Fish and Wildlife reports. They were published in *General Information Regarding Alaska, 1941*:

GENERAL COMPARISON OF RECENT COMPUTATIONS OF THE SEAL HERD

Class	1930	1931	1932	1933	1934
Harem bulls	8,312	9,233	10,088	10,213	10,770
Breeding cows	332,084	358,642	387,320	418,299	451,751
Surplus bulls	3,963	3,291	2,893	4,700	6,494
Idle bulls	1,899	1,888	2,349	2,341	2,282
6-year-old males	5,612	6,553	8,154	9,335	8,173
5-year-old males	8,191	10,193	11,669	10,216	13,897
4-year-old males	11,327	12,966	11,351	15,441	15,862
3-year-old males	14,871	13,198	17,849	18,216	24,770
2-year-old males	69,674	74,828	81,101	87,662	94,920
Yearling males	92,232	99,612	107,592	116,195	125,490
2-year-old cows	72,605	78,410	84,682	91,454	98,768
Yearling cows	92,247	99,626	107,593	116,197	125,490
Pups	332,084	358,642	387,320	418,299	451,751
 Total	 1,045,101	 1,127,082	 1,219,961	 1,318,568	 1,430,418

GENERAL COMPARISON OF RECENT COMPUTATIONS OF THE SEAL HERD (Continued)

Class	1935	1936	1937	1938	1939
Harem bulls	11,547	12,321	13,100	13,160	10,980
Breeding cows	487,883	526,848	568,982	614,499	663,634
Surplus bulls	6,139	7,994	9,140	7,277	7,828
Idle bulls	2,535	2,733	3,031	2,125	2,973
6-year-old males	11,117	11,421	15,188	17,269	14,561
5-year-old males	14,276	18,985	21,586	18,201	21,839
4-year-old males	21,096	23,991	33,815	24,275	26,486
3-year-old males	28,165	40,170	45,891	32,278	37,107
2-year-old males	102,555	110,505	118,889	107,003	116,124
Yearling males	135,525	146,365	158,051	142,232	153,621
2-year-old cows	106,666	115,197	124,410	123,150	132,999
Yearling cows	135,526	146,365	158,054	156,470	168,988
Pups	487,883	526,848	568,982	614,499	663,634
Total	1,550,913	1,689,743	1,839,119	1,872,438	2,020,774

LAND IN ALASKA

THE following information about homesteading in Alaska is taken from *Alaska: Information Relative to the Disposal and Leasing of Public Lands in Alaska*, prepared by the General Land Office of the Department of the Interior in 1944.

Lands Available

All unappropriated and unreserved public land in Alaska adaptable to any agricultural use, not mineral or saline in character, not occupied for the purpose of trade or business, and not within the limits of an incorporated city or town is subject to homestead settlement.

Qualifications Required

In order to make an original homestead settlement or entry in Alaska, the applicant must be 21 years of age or the head of

*Output of canned salmon in Alaska, in cases, 1938 to 1943
BY SPECIES*

	1938	1939	1940	1941	1942	Average for 5-year period 1938-42	Percentage increase or decrease in 1943 as compared with 5-year average	
							1943	1943
Southeastern Alaska:								
Coho, or silver	143,765	66,236	156,080	193,971	177,922	147,595	93,534	-36.63
Chum, or keta	474,453	266,104	485,787	319,938	596,181	434,493	673,662	+55.05
Pink, or humpback	1,886,769	1,475,358	1,458,071	3,640,761	1,756,047	2,043,401	1,038,439	-49.18
King, or spring	16,370	2,441	1,224	1,804	2,046	4,777	1,860	-61.06
Red, or sockeye	192,591	195,358	125,608	137,859	116,511	153,585	85,343	-44.43
Total	<hr/> 2,713,948	2,035,497	2,226,770	4,294,333	2,648,707	2,783,851	1,892,868	-32.01

a family, a citizen of the United States or have declared his intention to become a citizen, and not the owner of more than 160 acres of land in the United States, except that a homestead entry made in the United States outside of Alaska is not a disqualification. A married woman is not qualified to make homestead entry if she is residing with her husband and he is the head and main support of the family.

Settlement

Homestead settlement may be made on either surveyed or unsurveyed public land. A settler on unsurveyed land in Alaska should mark the boundaries of his claim by permanent monuments at each corner. He should also post notice on the ground showing his name, date of settlement, and a description of the claim by reference to natural objects or permanent monuments which will serve to identify it. To secure the land against adverse claim, notice of location must be recorded with the United States Commissioner of the proper recording district within 90 days after date of settlement. Settlement on any part of a surveyed quarter section subject to homestead entry gives the right to enter all of that quarter section. . . . A blank form on which entry must be made may be obtained by addressing the district land office.

Fees and Commissions

A homestead applicant must pay a fee of \$5 if the area applied for is less than 81 acres, or \$10 if 81 acres or more, and in addition, at the time of entry and final proof, a commission must be paid of \$1.50 for each 40-acre tract entered. The claimant must pay the cost of advertising his proof notice and a testimony fee of $22\frac{1}{2}$ cents for each 100 words reduced to writing in the proof.

Residence, Cultivation, and Habitable House

Residence must be established within six months after date of entry, unless an extension of time is allowed and must be continued in good faith, as a home, to the exclusion of a home elsewhere for three years unless the entry is commuted. Where for climatic reasons or on account of sickness or other unavoidable cause residence cannot be established within six months after date of entry, additional time, not exceeding six months, may be granted. . . . During each year beginning with the establishment of residence, a settler or entryman may absent himself from the land for not more than two periods aggregating as much as five months. The claimant should notify the registrar of the land office of the date when he leaves the land and the date when he returns.

A settler or entryman who has established actual residence on the land may be granted a leave of absence therefrom for one year or less in cases where total or partial failure or destruction of crops, sickness, or other unavoidable casualty has prevented the claimant from supporting himself and those dependent on him by the cultivation of the land. Application for such leave must be made on a form which may be obtained from the registrar.

Where climatic conditions make residence on a settlement claim or entry for seven months in each year a hardship, the term of residence, on application by the claimant, may be reduced to six months in each year over a period of four years, or to five months in each year over a period of five years.

During the second year an entryman is required to cultivate not less than one-sixteenth of the area entered, and during the third year and until the submission of proof, not less than one-eighth of the area.

A homestead settler or entryman must have a habitable house on the land when proof is made.

Proof must be submitted within five years from the date of

entry. Credit may be allowed for residence and cultivation before the date of entry, if the land was subject to appropriation by the claimant. In order to make acceptable three-year proof, the claimant must show three years' residence and cultivation on the land and that he has placed a habitable house thereon. No payment for the land is required where such proof is made.

Grazing Leases

Other than caribou, the only grazing animals which have been raised in the Aleutians are sheep.

Leases for grazing animals other than reindeer (caribou) may be issued for terms of not exceeding twenty years, for such areas of unreserved public lands as may be authorized by the Secretary of the Interior. The grazing fees are fixed with due regard to the economic value of the grazing privilege.

Fur Farm Leases

The Alaskan saying is: "Fur wearers breed faster than fur bearers."

Leases for fur farming purposes may be issued for periods of not exceeding ten years. In the discretion of the Secretary of the Interior, a lease may cover an entire island provided the area of said island does not exceed thirty square miles. Not more than 640 acres may be included in a lease on the mainland or on an island having an area of more than thirty square miles. Each lessee must pay a minimum annual rental of \$5 for a tract of not more than ten acres, or \$25 if the tract is over ten acres and does not exceed 640 acres, and of \$50 if the tract exceeds 640 acres. A lower minimum rental may be fixed in particular cases upon a satisfactory showing. A maximum annual rental must be paid equal to a royalty of one per cent on the gross returns derived from the sale of live animals and pelts, if the amount thereof exceeds the minimum rental mentioned.

